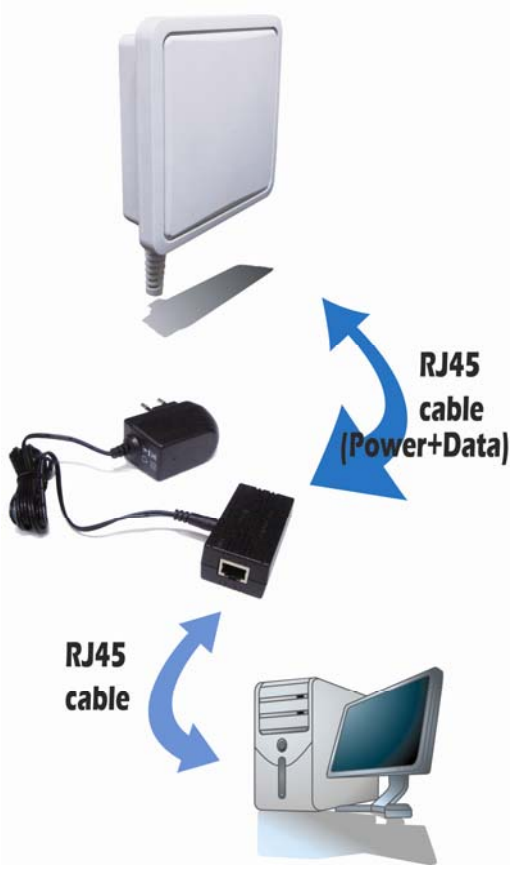
802.11bg High-Power Outdoor AP/CPE

USER MANUAL

1 Installation

1.1 Hardware Installation diagram



1. Plug Power adapter into APoE02-WM
2. Connect RJ45 (LAN Port) to computer or Switch
3. Connect RJ45 (PoE Port) to CPE

1.2 Mounting kit Installation Diagram

2 Software configuration

There are web based management and configuration functions allowing you to have the jobs done easily.

The AP is delivered with the following factory default parameters on the Ethernet LAN interfaces.

Default IP Address**:** ***192.168.1.250***
Default IP subnet mask**:** ***255.255.255.0***
WEB login User Name**:** ***admin***
WEB login Password**:** ***12345***

2.1 Prepare your PC to configure the AP

For OS of Microsoft Windows 95/ 98/ Me:

1. Click the ***Start*** button and select ***Settings***, then click ***Control Panel***. The ***Control Panel*** window will appear.
   Note: Windows Me users may not see the Network control panel. If so, *select* **View all Control Panel options** on the left side of the window
2. Move mouse and double-click the right button on ***Network*** icon. The ***Network*** window will appear.
3. Check the installed list of ***Network Components***. If TCP/IP is not installed, click the ***Add*** button to install it; otherwise go to step 6.
4. Select ***Protocol*** in the ***Network Component Type*** dialog box and click ***Add*** button.
5. Select ***TCP/IP*** in ***Microsoft*** of ***Select Network Protocol*** dialog box then click OK button to install the TCP/IP protocol, it may need the Microsoft Windows CD to complete the installation. Close and go back to ***Network*** dialog box after the TCP/IP installation.
6. Select ***TCP/IP*** and click the ***properties*** button on the ***Network*** dialog box.
7. Select ***Specify an IP address*** and type in values as following example.
   - ✓ IP Address: **192.168.1.1**, any IP address within 192.168.1.1 to 192.168.1.253 is good to connect the Wireless LAN Access Point.
   - ✓ IP Subnet Mask: **255.255.255.0**
8. Click OK and reboot your PC after completes the IP parameters setting.

For OS of Microsoft Windows 2000, XP:

1. Click the ***Start*** button and select ***Settings***, then click ***Control Panel***. The ***Control Panel*** window will appear.
2. Move mouse and double-click the right button on ***Network and Dial-up Connections*** icon. Move mouse and double-click the ***Local Area Connection*** icon. The ***Local Area Connection*** window will appear. Click ***Properties*** button in the ***Local Area Connection*** window.
3. Check the installed list of ***Network Components***. If TCP/IP is not installed, click the ***Add*** button to install it; otherwise go to step 6.
4. Select ***Protocol*** in the ***Network Component Type*** dialog box and click ***Add*** button.
5. Select ***TCP/IP*** in ***Microsoft*** of ***Select Network Protocol*** dialog box then click OK button to install the TCP/IP protocol, it may need the Microsoft Windows CD to complete the installation. Close and go back to ***Network*** dialog box after the TCP/IP installation.
6. Select ***TCP/IP*** and click the ***properties*** button on the ***Network*** dialog box.
7. Select ***Specify an IP address*** and type in values as following example.
   - ✓ IP Address: **192.168.1.1**, any IP address within 192.168.1.1 to 192.168.1.253 is good to connect the Wireless LAN Access Point.
   - ✓ IP Subnet Mask: **255.255.255.0**
8. Click OK to completes the IP parameters setting.

For OS of Microsoft Windows NT:

1. Click the ***Start*** button and select ***Settings***, then click ***Control Panel***. The ***Control Panel*** window will appear.
2. Move mouse and double-click the right button on ***Network*** icon. The ***Network*** window will appear. Click ***Protocol*** tab from the ***Network*** window.
3. Check the installed list of ***Network Protocol*** window. If TCP/IP is not installed, click the ***Add*** button to install it; otherwise go to step 6.
4. Select ***Protocol*** in the ***Network Component Type*** dialog box and click ***Add*** button.
5. Select ***TCP/IP*** in ***Microsoft*** of ***Select Network Protocol*** dialog box then click OK button to install the TCP/IP protocol, it may need the Microsoft Windows CD to complete the installation. Close and go back to ***Network*** dialog box after the TCP/IP installation.

6. Select ***TCP/IP*** and click the ***properties*** button on the ***Network*** dialog box.
7. Select ***Specify an IP address*** and type in values as following example.
   - ✓ IP Address: **192.168.1.1**, any IP address within 192.168.1.1 to 192.168.1.253 is good to connect the Wireless LAN Access Point.
   - ✓ IP Subnet Mask: **255.255.255.0**
8. Click OK to complete the IP parameters setting.

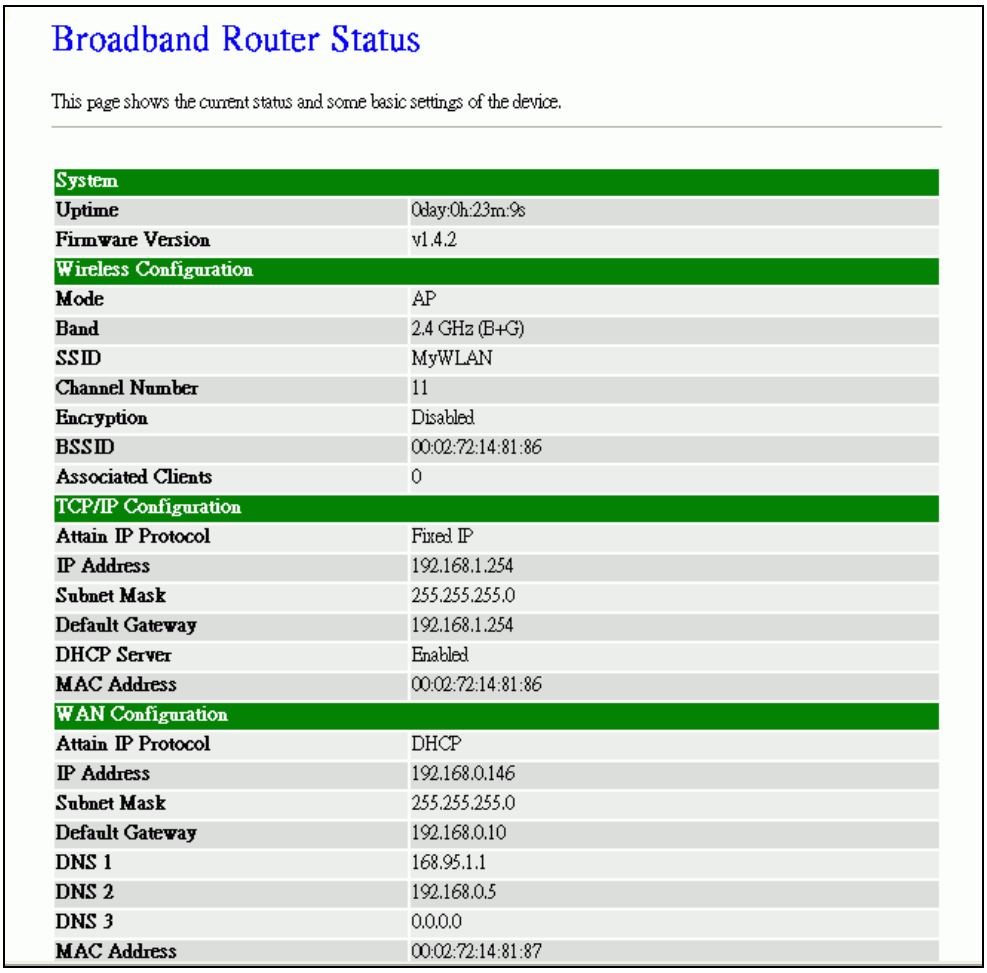
2.2 Connect to the AP

Open a WEB browser, i.e. Microsoft Internet Explore, then enter 192.168.1.254 on the URL to connect the AP.

2.3 Management and configuration on the AP

2.3.1 Status

This page shows the current status and some basic settings of the device, includes system, wireless, Ethernet LAN and WAN configuration information.



Broadband Router Status

This page shows the current status and some basic settings of the device.

System	
Uptime	0day:0h:23m:9s
Firmware Version	v1.4.2
Wireless Configuration	
Mode	AP
Band	2.4 GHz (B+G)
SSID	MyWLAN
Channel Number	11
Encryption	Disabled
BSSID	00:02:72:14:81:86
Associated Clients	0
TCP/IP Configuration	
Attain IP Protocol	Fixed IP
IP Address	192.168.1.254
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.254
DHCP Server	Enabled
MAC Address	00:02:72:14:81:86
WAN Configuration	
Attain IP Protocol	DHCP
IP Address	192.168.0.146
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.10
DNS 1	168.95.1.1
DNS 2	192.168.0.5
DNS 3	0.0.0.0
MAC Address	00:02:72:14:81:87

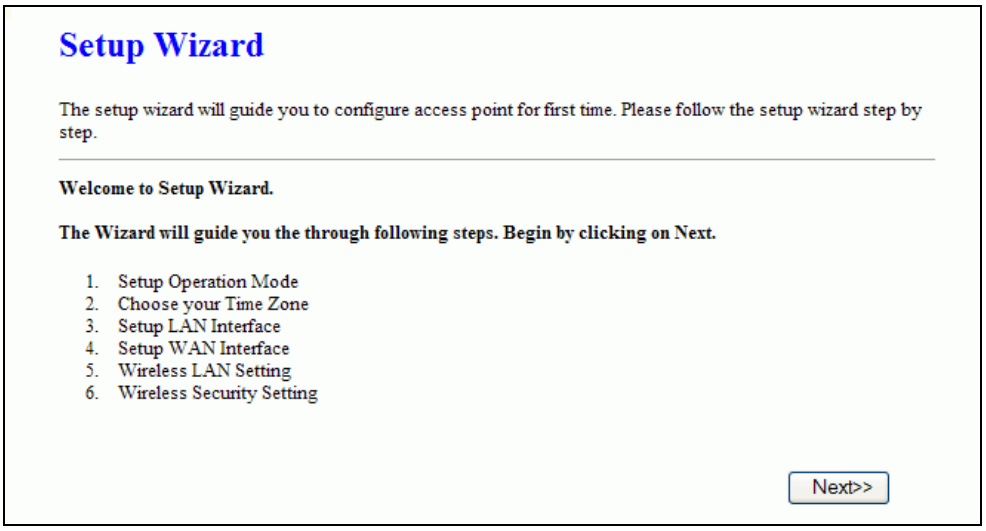
Screen snapshot – Status

Item	Description
System	
Uptime	It shows the duration since AP is powered on.
Firmware version	It shows the firmware version of AP.
Wireless configuration	
Mode	It shows wireless operation mode
Band	It shows the current wireless operating frequency.
SSID	It shows the SSID of this AP. The SSID is the unique name of AP and shared among its service area, so all devices attempts to join the same wireless network can identify it.
Channel Number	It shows the wireless channel connected currently.
Encryption	It shows the status of encryption function.
BSSID	It shows the BSSID address of the AP. BSSID is a six-byte address.
Associated Clients	It shows the number of connected clients (or stations, PCs).
TCP/IP configuration	
Attain IP Protocol	It shows type of connection.
IP Address	It shows the IP address of LAN interfaces of AP.
Subnet Mask	It shows the IP subnet mask of LAN interfaces of AP.
Default Gateway	It shows the default gateway setting for LAN interfaces outgoing data packets.
DHCP Server	It shows the DHCP server is enabled or not.
MAC Address	It shows the MAC address of LAN interfaces of AP.
WAN configuration	
Attain IP Protocol	It shows how the AP gets the IP address. The IP address can be set manually to a fixed one or set dynamically by DHCP server or attain IP by PPPoE / PPTP connection.

IP Address	It shows the IP address of WAN interface of AP.
Subnet Mask	It shows the IP subnet mask of WAN interface of AP.
Default Gateway	It shows the default gateway setting for WAN interface outgoing data packets.
DNS1/DNS2/DNS3	It shows the DNS server information.
MAC Address	It shows the MAC address of WAN interface of AP.

2.3.2 Setup Wizard

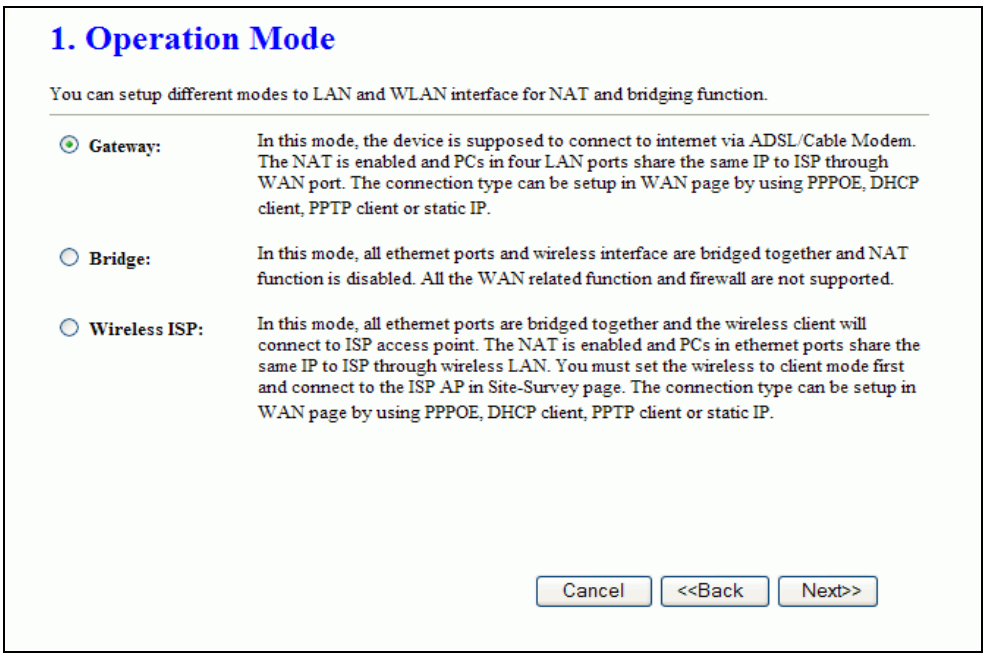
This page guides you to configure wireless broadband router for first time


Setup Wizard
The setup wizard will guide you to configure access point for first time. Please follow the setup wizard step by step.
Welcome to Setup Wizard.
The Wizard will guide you the through following steps. Begin by clicking on Next.
1. Setup Operation Mode
2. Choose your Time Zone
3. Setup LAN Interface
4. Setup WAN Interface
5. Wireless LAN Setting
6. Wireless Security Setting
Next>>

Screen snapshot – Setup Wizard

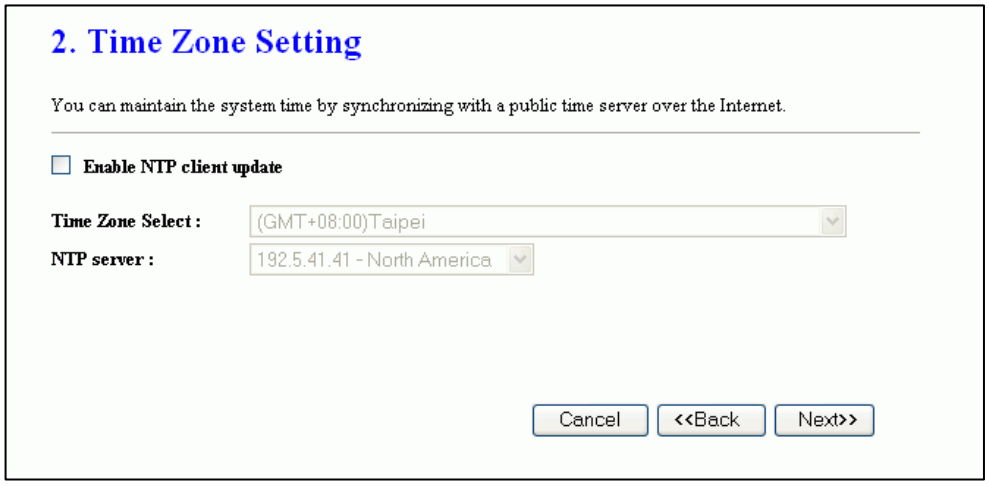
- Operation Mode

  This page followed by Setup Wizard page to define the operation mode.


1. Operation Mode
You can setup different modes to LAN and WLAN interface for NAT and bridging function.
Gateway:
In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in four LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
Bridge:
In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.
Wireless ISP:
In this mode, all ethernet ports are bridged together and the wireless client will connect to ISP access point. The NAT is enabled and PCs in ethernet ports share the same IP to ISP through wireless LAN. You must set the wireless to client mode first and connect to the ISP AP in Site-Survey page. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
Cancel
<<Back
Next>>

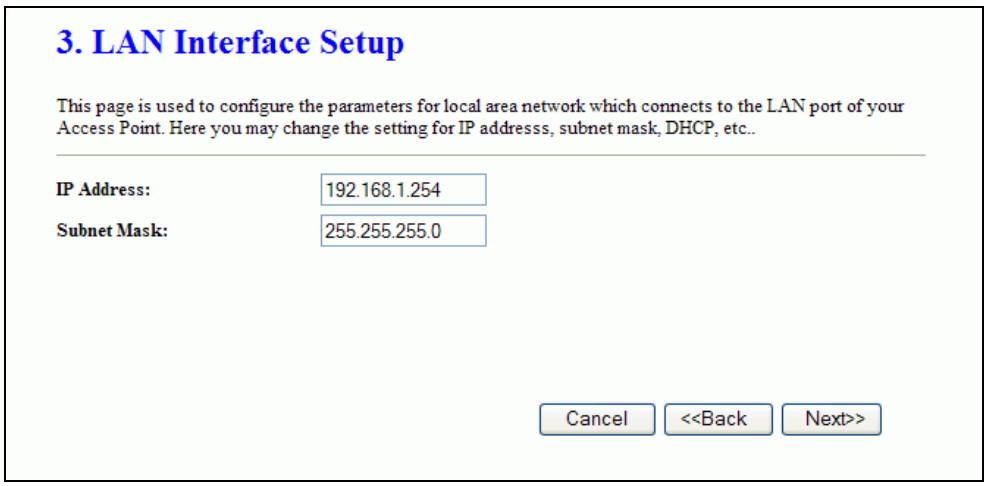
Screen snapshot – Operation Mode

- Time Zone Setting
  This page is used to enable and configure NTP client


2. Time Zone Setting
You can maintain the system time by synchronizing with a public time server over the Internet.
Enable NTP client update
Time Zone Select :
(GMT+08:00)Taipei
NTP server :
192.5.41.41 - North America
Cancel
<<Back
Next>>

Screen snapshot – Time Zone Settings

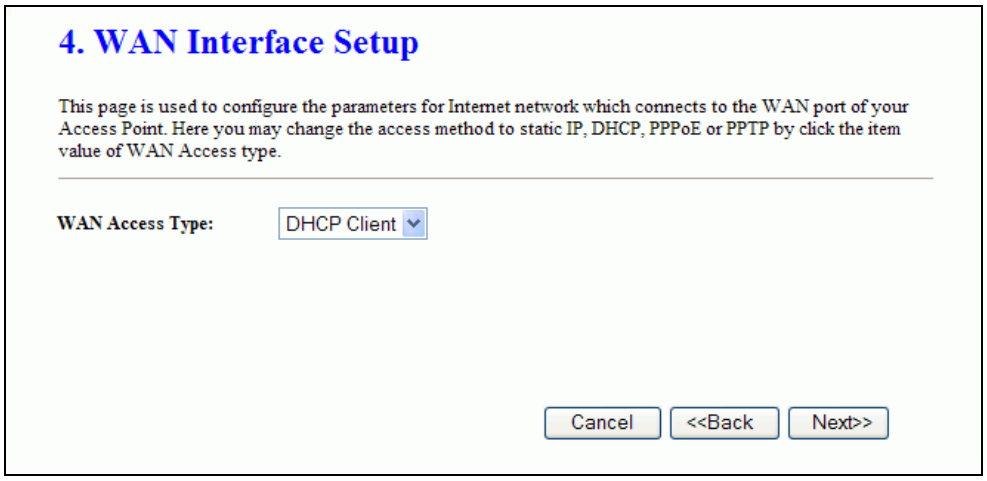
- LAN Interface Setup
  This page is used to configure local area network IP address and subnet mask


3. LAN Interface Setup
This page is used to configure the parameters for local area network which connects to the LAN port of your Access Point. Here you may change the setting for IP addresss, subnet mask, DHCP, etc..
IP Address:
192.168.1.254
Subnet Mask:
255.255.255.0
Cancel
<<Back
Next>>

Screen snapshot – LAN Interface Setup

- WAN Interface Setup

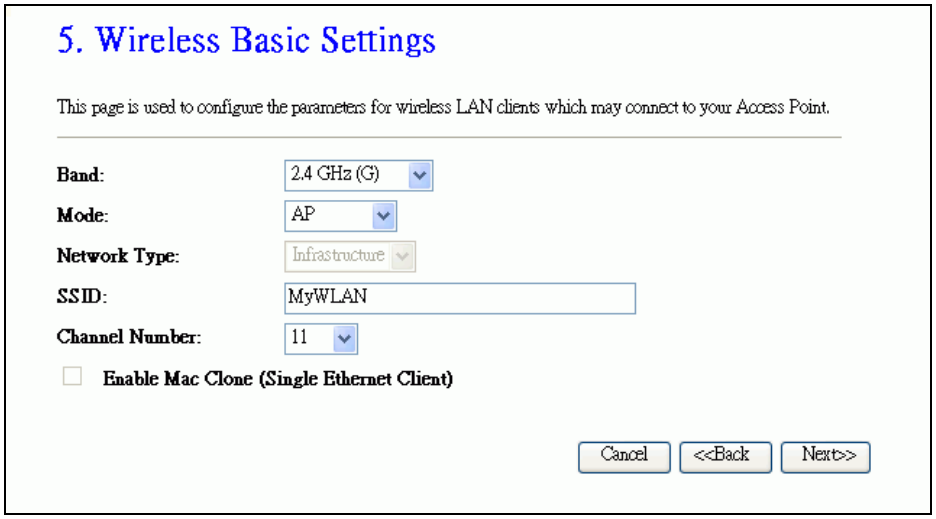
  This page is used to configure WAN access type


4. WAN Interface Setup
This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.
WAN Access Type:
DHCP Client
Cancel
<<Back
Next>>

Screen snapshot – WAN Interface Setup

- Wireless Basic Settings

  This page is used to configure basic wireless parameters like Band, Mode, Network Type SSID, Channel Number, Enable Mac Clone(Single Ethernet Client)



Screen snapshot – Wireless Basic Settings

- Wireless Security Setup

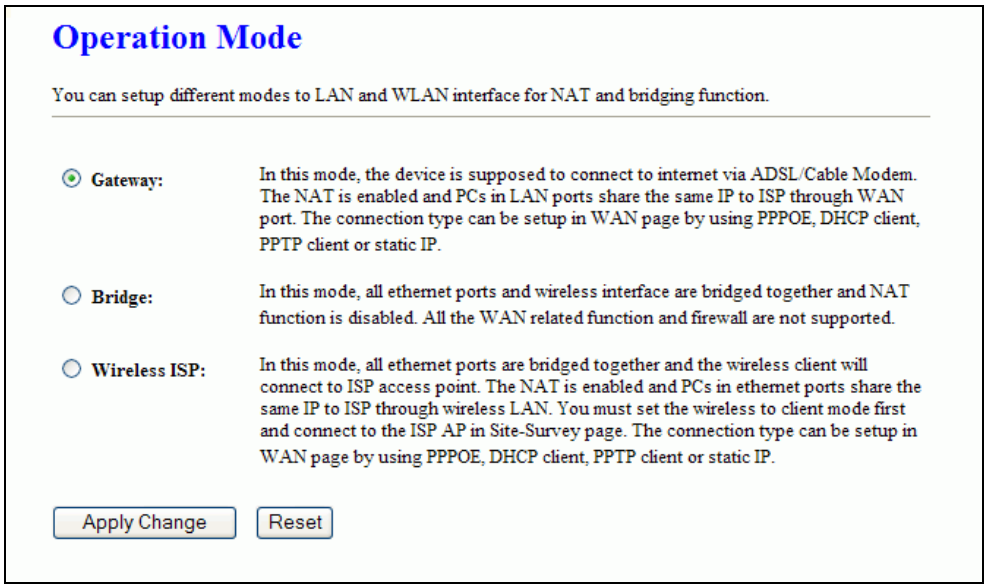
  This page is used to configure wireless security

6. Wireless Security Setup
This page allows you setup the wireless security. Turn on WEP or WPA by using Encryption Keys could prevent any unauthorized access to your wireless network.
Encryption:
None
Cancel
<<Back
Finished

Screen snapshot – Wireless Security Setup

2.3.3 Operation Mode

This page is used to configure which mode wireless broadband router acts


Operation Mode
You can setup different modes to LAN and WLAN interface for NAT and bridging function.
Gateway:
In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
Bridge:
In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.
Wireless ISP:
In this mode, all ethernet ports are bridged together and the wireless client will connect to ISP access point. The NAT is enabled and PCs in ethernet ports share the same IP to ISP through wireless LAN. You must set the wireless to client mode first and connect to the ISP AP in Site-Survey page. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
Apply Change
Reset

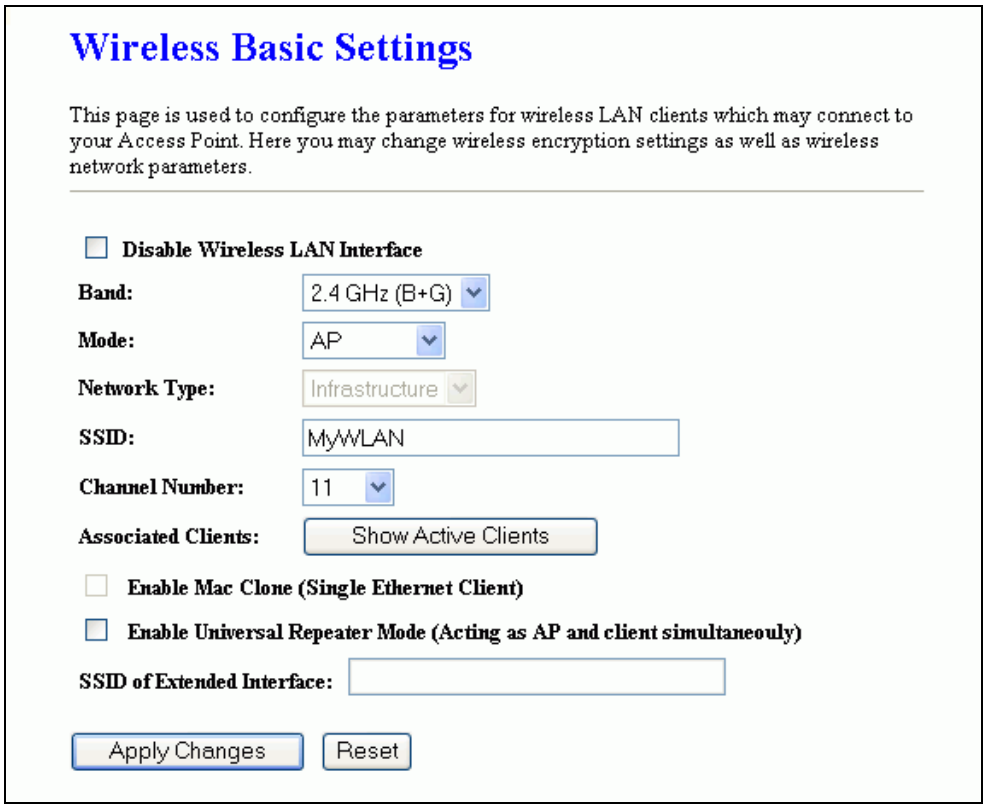
Screen snapshot – Operation Mode

Item	Description
Gateway	Traditional gateway configuration. It always connects internet via ADSL/Cable Modem.

	LAN interface, WAN interface, Wireless interface, NAT and Firewall modules are applied to this mode
Bridge	Each interface (LAN, WAN and Wireless) regards as bridge. NAT, Firewall and all router's functions are not supported
Wireless ISP	Switch Wireless interface to WAN port and all Ethernet ports in bridge mode. Wireless interface can do all router's functions
Apply Changes	Click the ***Apply Changes*** button to complete the new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.4 Wireless - Basic Settings

This page is used to configure the parameters for wireless LAN clients that may connect to your Broadband Router. Here you may change wireless encryption settings as well as wireless network parameters.


Wireless Basic Settings
This page is used to configure the parameters for wireless LAN clients which may connect to your Access Point. Here you may change wireless encryption settings as well as wireless network parameters.
Disable Wireless LAN Interface
Band:
2.4 GHz (B+G)
Mode:
AP
Network Type:
Infrastructure
SSID:
MyWLAN
Channel Number:
11
Associated Clients:
Show Active Clients
Enable Mac Clone (Single Ethernet Client)
Enable Universal Repeater Mode (Acting as AP and client simultaneouly)
SSID of Extended Interface:
Apply Changes
Reset

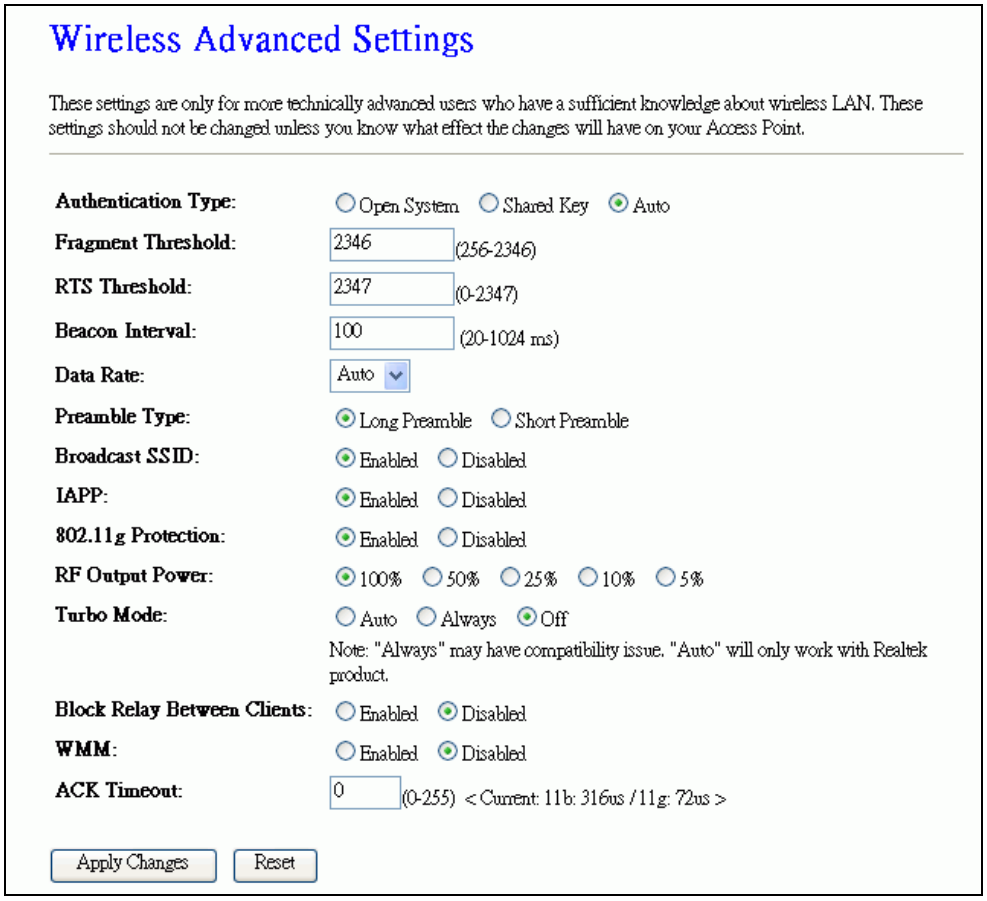
Screen snapshot – Wireless Basic Settings

Item	Description
Disable Wireless LAN Interface	Click on to disable the wireless LAN data transmission.
Band	Click to select 2.4GHz(B) / 2.4GHz(G) / 2.4GHz(B+G)
Mode	Click to select the WLAN AP / Client / WDS / AP+WDS wireless mode.
Site Survey	The ***Site Survey*** button provides tool to scan the wireless network. If any Access Point or IBSS is found, you could choose to connect it manually when client mode is enabled. Refer to 3.3.9 Site Survey.
SSID	It is the wireless network name. The SSID can be 32 bytes long.
Channel Number	Select the wireless communication channel from pull-down menu.
Associated Clients	Click the ***Show Active Clients*** button to open Active Wireless Client Table that shows the MAC address, transmit-packet, receive-packet and transmission-rate for each associated wireless client.
Enable Mac Clone (Single Ethernet Client)	Take Laptop NIC MAC address as wireless client MAC address. **[Client Mode only]**
Enable Universal Repeater Mode	Click to enable Universal Repeater Mode
SSID of Extended Interface	Assign SSID when enables Universal Repeater Mode.
Apply Changes	Click the ***Apply Changes*** button to complete the new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.5 Wireless - Advanced Settings

These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effect the changes

will have on your AP.


Wireless Advanced Settings
These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effect the changes will have on your Access Point.
Authentication Type: Open System Shared Key Auto
Fragment Threshold: 2346 (256-2346)
RTS Threshold: 2347 (0-2347)
Beacon Interval: 100 (20-1024 ms)
Data Rate: Auto
Preamble Type: Long Preamble Short Preamble
Broadcast SSID: Enabled Disabled
IAPP: Enabled Disabled
802.11g Protection: Enabled Disabled
RF Output Power: 100% 50% 25% 10% 5%
Turbo Mode: Auto Always Off
Note: "Always" may have compatibility issue. "Auto" will only work with Realtek product.
Block Relay Between Clients: Enabled Disabled
WMM: Enabled Disabled
ACK Timeout: 0 (0-255) < Current: 11b: 316us / 11g: 72us >
Apply Changes
Reset

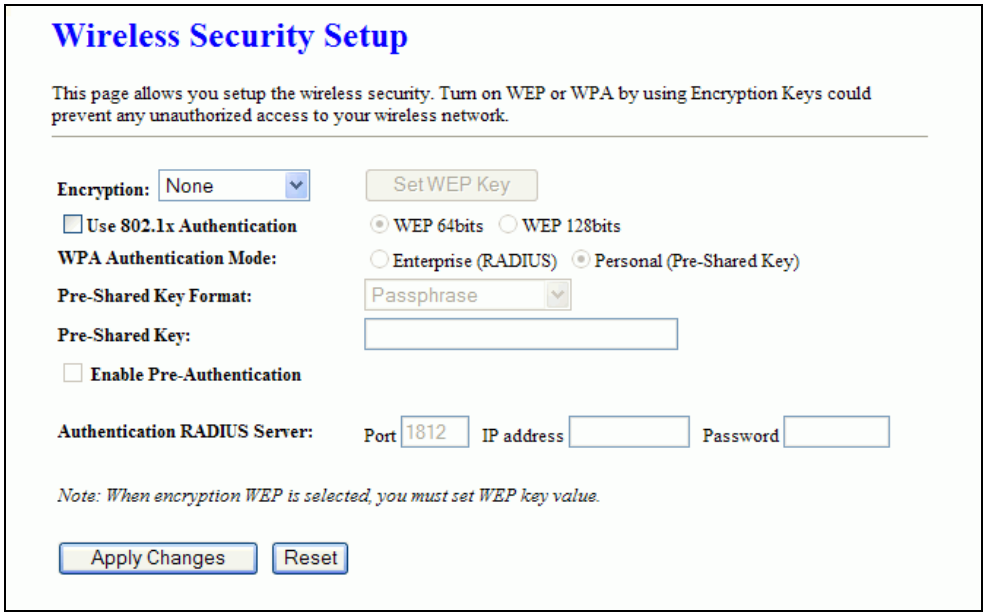
Screen snapshot – Wireless Advanced Settings

Item	Description
Authentication Type	Click to select the authentication type in ***Open System***, ***Shared Key*** or ***Auto*** selection.
Fragment Threshold	Set the data packet fragmentation threshold, value can be written between 256 and 2346 bytes.
RTS Threshold	Set the RTS Threshold, value can be written between 0 and 2347 bytes.
Beacon Interval	Set the Beacon Interval, value can be written between 20 and 1024 ms.
Data Rate	Select the transmission data rate from pull-down menu. Data rate can be auto-select, 11M, 5.5M, 2M or 1Mbps.
Preamble Type	Click to select the ***Long Preamble*** or ***Short Preamble*** support on the wireless data packet

	transmission.
Broadcast SSID	Click to enable or disable the SSID broadcast function.
IAPP	Click to enable or disable the IAPP function.
802.11g Protection	Protect 802.11b user.
RF Output Power	To adjust transmission power level.
Turbo Mode	Click to Enable/Disable turbo mode.(***Only apply to WLAN IC of Realtek***).
Block Relay Between Clients	Click Enabled/Disabled to decide if blocking relay packets between clients.
WMM	Click Enabled/Disable*d* to init WMM feature.
ACK Timeout	Set ACK timeout value. It shows current time in the end.
Apply Changes	Click the ***Apply Changes*** button to complete the new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.6 Wireless - Security Setup

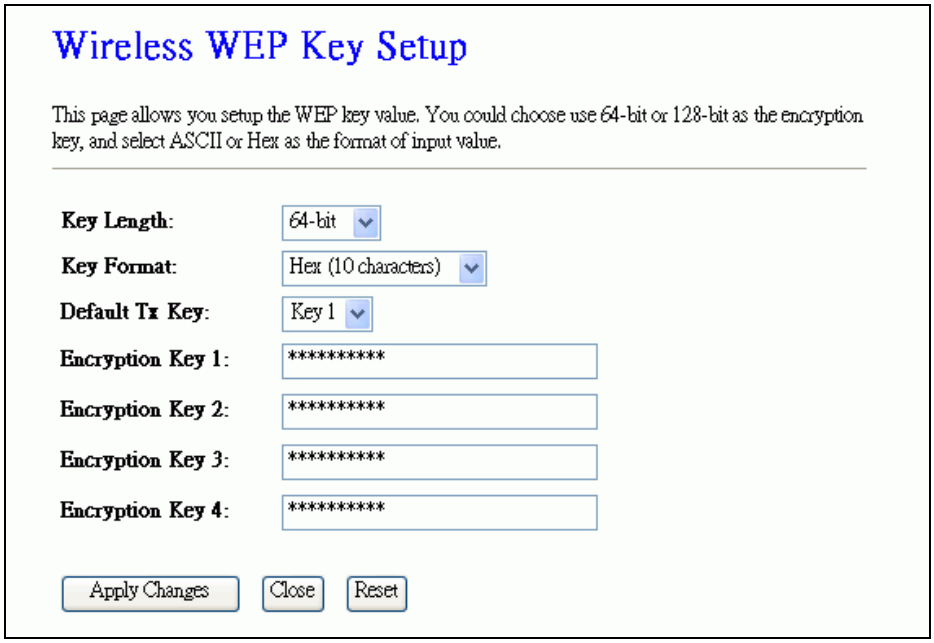
This page allows you setup the wireless security. Turn on WEP, WPA, WPA2 by using encryption keys could prevent any unauthorized access to your wireless network.



Screen snapshot – Wireless Security Setup

Item	Description
Encryption	Select the encryption supported over wireless access. The encryption method can be None, WEP, WPA(TKIP), WPA2 or WPA2 Mixed
Use 802.1x Authentication	While Encryption is selected to be WEP. Click the check box to enable IEEE 802.1x authentication function.
WPA Authentication Mode	While Encryption is selected to be WPA. Click to select the WPA Authentication Mode with Enterprise (RADIUS) or Personal (Pre-Shared Key).
Pre-Shared Key Format	While Encryption is selected to be WPA. Select the Pre-shared key format from the pull-down menu. The format can be Passphrase or Hex (64 characters). **[WPA, Personal(Pre-Shared Key) only]**
Pre-Shared Key	Fill in the key value. [WPA, Personal(Pre-Shared Key) only]
Enable Pre-Authentication	Click to enable Pre-Authentication. [WPA2/WPA2 Mixed only, Enterprise only]
Authentication RADIUS Server	Set the IP address, port and login password information of authentication RADIUS sever.
Apply Changes	Click the ***Apply Changes*** button to complete the new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

- WEP Key Setup



Screen snapshot – WEP Key Setup

Item	Description
Key Length	Select the WEP shared secret key length from pull-down menu. The length can be chose between 64-bit and 128-bit (known as "WEP2") keys. The WEP key is composed of initialization vector (24 bits) and secret key (40-bit or 104-bit).
Key Format	Select the WEP shared secret key format from pull-down menu. The format can be chose between plant text (ASCII) and hexadecimal (HEX) code.
Default Tx Key	Set the default secret key for WEP security function. Value can be chose between 1 and 4.
Encryption Key 1	Secret key 1 of WEP security encryption function.
Encryption Key 2	Secret key 2 of WEP security encryption function.
Encryption Key 3	Secret key 3 of WEP security encryption function.

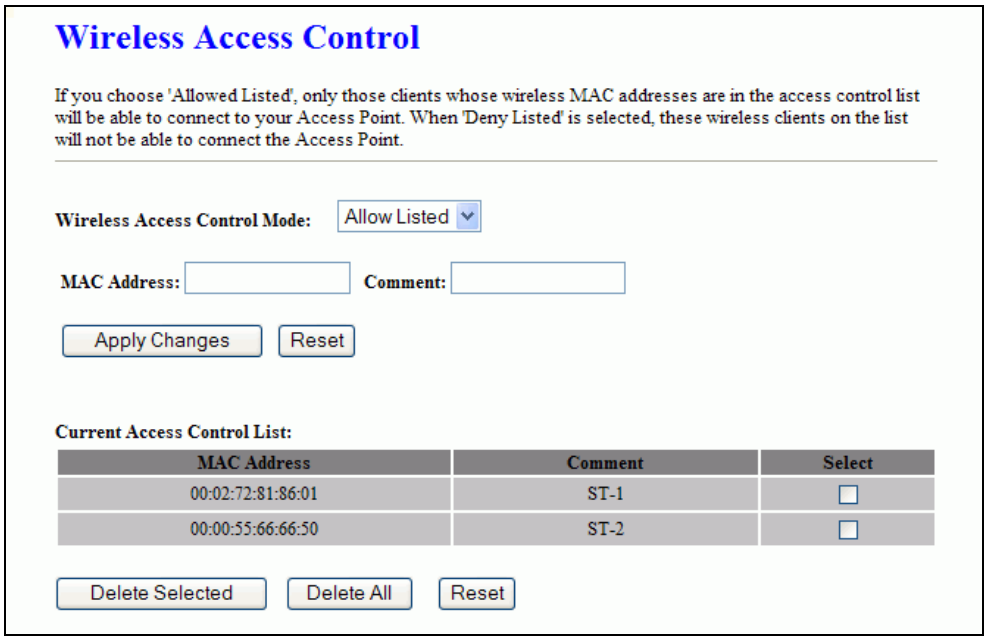
Encryption Key 4	Secret key 4 of WEP security encryption function.
Apply Changes	Click the ***Apply Changes*** button to complete the new configuration setting.
Close	Click to close this WEP Key setup window.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

WEP encryption key (secret key) length:

Format \ Length	64-bit	128-bit
ASCII	5 characters	13 characters
HEX	10 hexadecimal codes	26 hexadecimal codes

2.3.7 Wireless - Access Control

If you enable wireless access control, only those clients whose wireless MAC addresses are in the access control list will be able to connect to your Access Point. When this option is enabled, no wireless clients will be able to connect if the list contains no entries.


Wireless Access Control
If you choose 'Allowed Listed', only those clients whose wireless MAC addresses are in the access control list will be able to connect to your Access Point. When 'Deny Listed' is selected, these wireless clients on the list will not be able to connect the Access Point.
Wireless Access Control Mode:
Allow Listed
MAC Address:
Comment:
Apply Changes
Reset
Current Access Control List:
MAC Address
Comment
Select
00:02:72:81:86:01
ST-1
00:00:55:66:66:50
ST-2
Delete Selected
Delete All
Reset

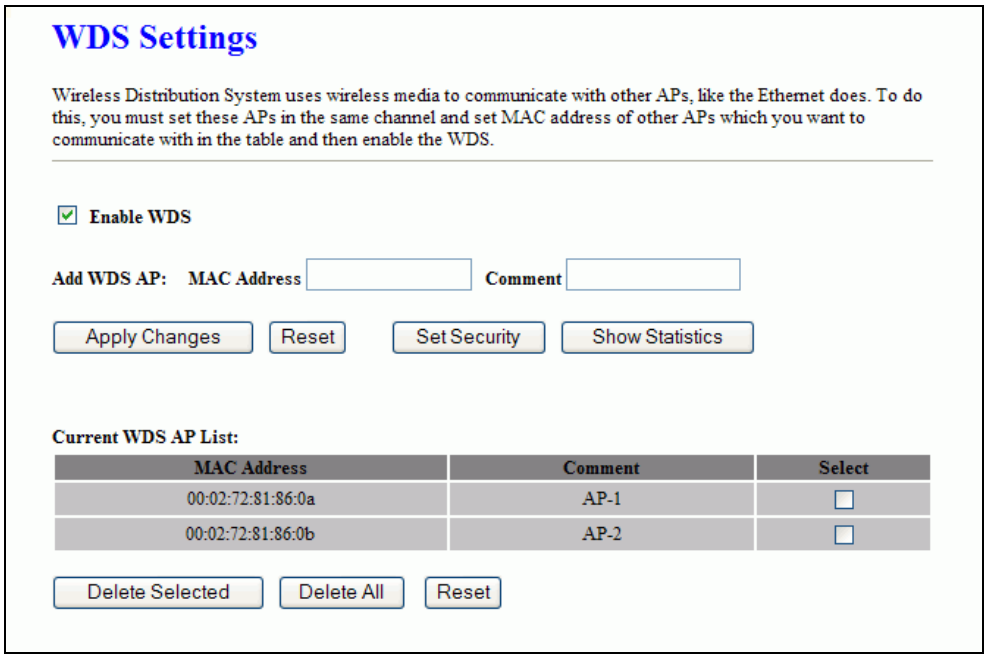
Screen snapshot – Wireless Access Control

Item	Description
Wireless Access	Click the ***Disabled***, ***Allow Listed*** or ***Deny***

Control Mode	***Listed*** of drop down menu choose wireless access control mode. This is a security control function; only those clients registered in the access control list can link to this AP.
MAC Address	Fill in the MAC address of client to register this AP access capability.
Comment	Fill in the comment tag for the registered client.
Apply Changes	Click the ***Apply Changes*** button to register the client to new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.
Current Access Control List	It shows the registered clients that are allowed to link to this AP.
Delete Selected	Click to delete the selected clients that will be access right removed from this AP.
Delete All	Click to delete all the registered clients from the access allowed list.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.8 WDS Settings

Wireless Distribution System uses wireless media to communicate with other APs, like the Ethernet does. To do this, you must set these APs in the same channel and set MAC address of other AP that you want to communicate with in the table and then enable the WDS.


WDS Settings
Wireless Distribution System uses wireless media to communicate with other APs, like the Ethernet does. To do this, you must set these APs in the same channel and set MAC address of other APs which you want to communicate with in the table and then enable the WDS.
Enable WDS
Add WDS AP: MAC Address
Comment
Apply Changes
Reset
Set Security
Show Statistics
Current WDS AP List:
MAC Address
Comment
Select
00:02:72:81:86:0a
AP-1
00:02:72:81:86:0b
AP-2
Delete Selected
Delete All
Reset

Screen snapshot – WDS Setup

Item	Description
Enable WDS	Click the check box to enable wireless distribution system.
MAC Address	Fill in the MAC address of AP to register the wireless distribution system access capability.
Comment	Fill in the comment tag for the registered AP.
Apply Changes	Click the ***Apply Changes*** button to register the AP to new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.
Set Security	Click button to configure wireless security like ***WEP(64bits), WEP(128bits), WPA(TKIP), WPA2(AES)*** or ***None***
Show Statistics	It shows the TX, RX packets, rate statistics
Delete Selected	Click to delete the selected clients that will be removed from the wireless distribution system.
Delete All	Click to delete all the registered APs from the wireless distribution system allowed list.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

- WDS Security Setup

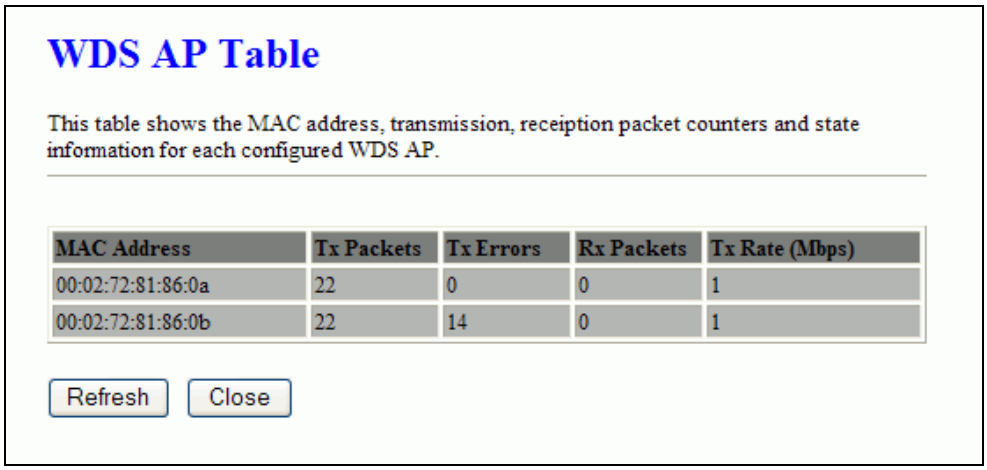
  Requirement: Set [Wireless]->[Basic Settings]->[Mode]->AP+WDS

  This page is used to configure the wireless security between APs.

Screen snapshot – WDS Security Setup

- WDS AP Table

  This page is used to show WDS statistics



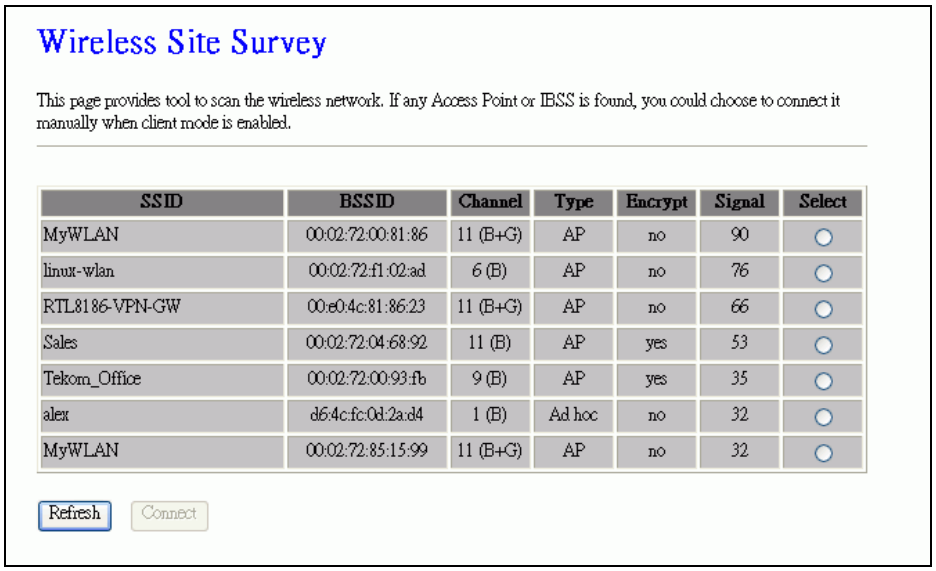
Screen snapshot – WDS AP Table

Item	Description
MAC Address	It shows the MAC Address within WDS.
Tx Packets	It shows the statistic count of sent packets on

	the wireless LAN interface.
Tx Errors	It shows the statistic count of error sent packets on the Wireless LAN interface.
Rx Packets	It shows the statistic count of received packets on the wireless LAN interface.
Tx Rare (Mbps)	It shows the wireless link rate within WDS.
Refresh	Click to refresh the statistic counters on the screen.
Close	Click to close the current window.

2.3.9 Site Survey

This page is used to view or configure other APs near yours.


Wireless Site Survey
This page provides tool to scan the wireless network. If any Access Point or IBSS is found, you could choose to connect it manually when client mode is enabled.
SSID
BSSID
Channel
Type
Encrypt
Signal
Select
MyWLAN 00:02:72:00:81:86 11 (B+G) AP no 90
linux-wlan 00:02:72:f1:02:ad 6 (B) AP no 76
RTL8186-VPN-GW 00:e0:4c:81:86:23 11 (B+G) AP no 66
Sales 00:02:72:04:68:92 11 (B) AP yes 53
Tekom_Office 00:02:72:00:93:fb 9 (B) AP yes 35
alex d6:4c:fc:0d:2a:d4 1 (B) Ad hoc no 32
MyWLAN 00:02:72:85:15:99 11 (B+G) AP no 32
Refresh
Connect

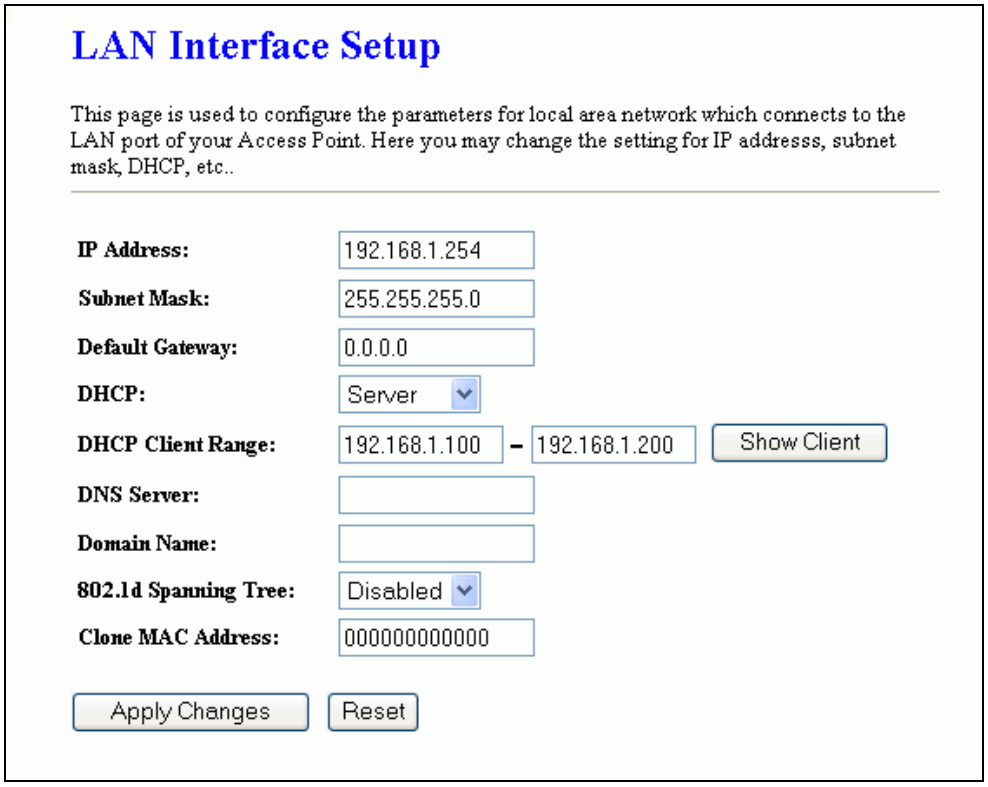
Screen snapshot – Wireless Site Survey

Item	Description
SSID	It shows the SSID of AP.
BSSID	It shows BSSID of AP.
Channel	It show the current channel of AP occupied.
Type	It show which type AP acts.
Encrypt	It shows the encryption status.
Signal	It shows the power level of current AP.
Select	Click to select AP or client you'd like to connect.
Refresh	Click the ***Refresh*** button to re-scan site survey on the screen.

Connect	Click the ***Connect*** button to establish connection.

2.3.10 LAN Interface Setup

This page is used to configure the parameters for local area network that connects to the LAN ports of your AP. Here you may change the setting for IP address, subnet mask, DHCP, etc.



Screen snapshot – LAN Interface Setup

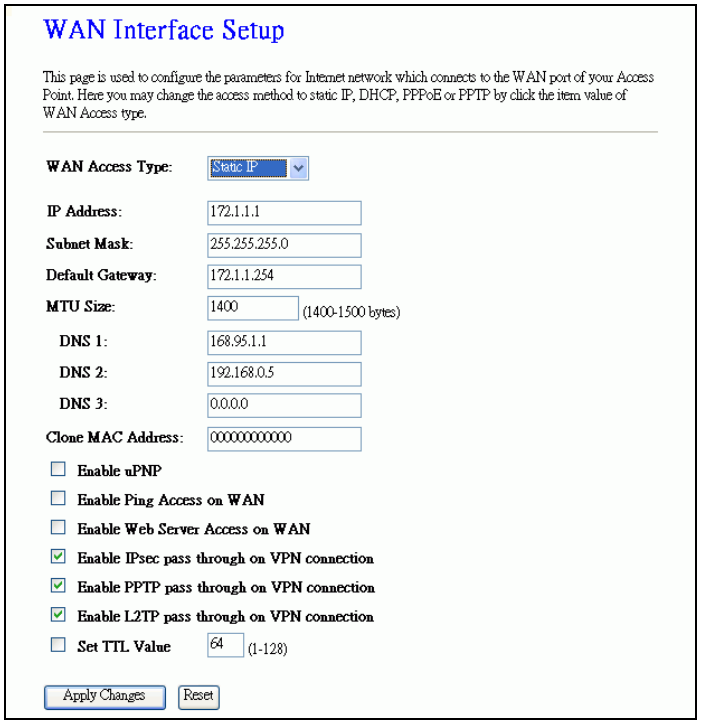
Item	Description
IP Address	Fill in the IP address of LAN interfaces of this WLAN Access Point.
Subnet Mask	Fill in the subnet mask of LAN interfaces of this WLAN Access Point.
Default Gateway	Fill in the default gateway for LAN interfaces out going data packets.
DHCP	Click to select ***Disabled***, ***Client*** or ***Server*** in different operation mode of wireless Access Point.
DHCP Client Range	Fill in the start IP address and end IP address to allocate a range of IP addresses; client with

	DHCP function set will be assigned an IP address from the range.
Show Client	Click to open the ***Active DHCP Client Table*** window that shows the active clients with their assigned IP address, MAC address and time expired information. **[Server mode only]**
DNS Server	Manual setup DNS server IP address.
Domain Name	Assign Domain Name and dispatch to DHCP clients. It is optional field.
802.1d Spanning Tree	Select to enable or disable the IEEE 802.1d Spanning Tree function from pull-down menu.
Clone MAC Address	Fill in the MAC address that is the MAC address to be cloned.
Apply Changes	Click the ***Apply Changes*** button to complete the new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.11 WAN Interface Setup

This page is used to configure the parameters for wide area network that connects to the WAN port of your AP. Here you may change the access method to ***Static IP***, ***DHCP***, ***PPPoE*** or ***PPTP*** by click the item value of **WAN Access Type**.

- Static IP

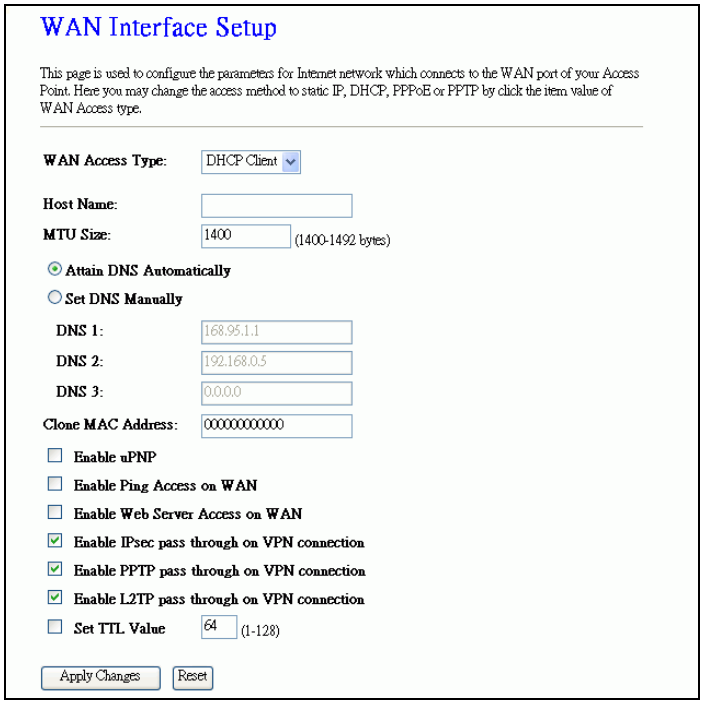


Screen snapshot – WAN Interface Setup – Static IP

Item	Description
Static IP	Click to select Static IP support on WAN interface. There are IP address, subnet mask and default gateway settings need to be done.
IP Address	If you select the Static IP support on WAN interface, fill in the IP address for it.
Subnet Mask	If you select the Static IP support on WAN interface, fill in the subnet mask for it.
Default Gateway	If you select the Static IP support on WAN interface, fill in the default gateway for WAN interface out going data packets.
MTU Size	Fill in the mtu size of MTU Size. The default value is 1400
DNS 1	Fill in the IP address of Domain Name Server 1.
DNS 2	Fill in the IP address of Domain Name Server 2.
DNS 3	Fill in the IP address of Domain Name Server 3.
Clone MAC Address	Fill in the MAC address that is the MAC

	address to be cloned.
Enable uPNP	Click the checkbox to enable uPNP function.
Enable Web Server Access on WAN	Click the checkbox to enable web configuration from WAN side.
Enable WAN Echo Reply	Click the checkbox to enable WAN ICMP response.
Enable IPsec pass through on VPN connection	Click the checkbox to enable IPSec packet pass through
Enable PPTP pass through on VPN connection	Click the checkbox to enable PPTP packet pass through
Enable L2TP pass through on VPN connection	Click the checkbox to enable L2TP packet pass through
Set TTL value	Click to Enable and set Time to Live value.
Apply Changes	Click the ***Apply Changes*** button to complete the new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

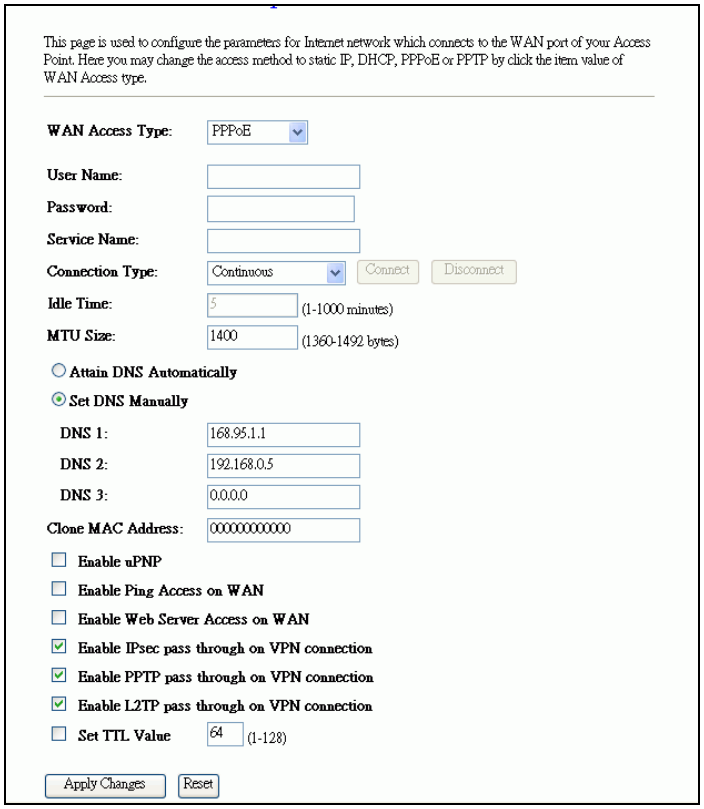
- DHCP Client


WAN Interface Setup
This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.
WAN Access Type:
DHCP Client
Host Name:
MTU Size:
1400
(1400-1492 bytes)
Attain DNS Automatically
Set DNS Manually
DNS 1:
168.95.1.1
DNS 2:
192.168.0.5
DNS 3:
0.0.0.0
Clone MAC Address:
00000000000
Enable uPNP
Enable Ping Access on WAN
Enable Web Server Access on WAN
Enable IPsec pass through on VPN connection
Enable PPTP pass through on VPN connection
Enable L2TP pass through on VPN connection
Set TTL Value
64
(1-128)
Apply Changes
Reset

Screen snapshot – WAN Interface Setup – DHCP Client

Item	Description
DHCP Client	Click to select DHCP support on WAN interface for IP address assigned automatically from a DHCP server.
Host Name	Fill in the host name of Host Name. The default value is empty
MTU Size	Fill in the mtu size of MTU Size. The default value is 1400
Attain DNS Automatically	Click to select getting DNS address for ***DHCP*** support. Please select ***Set DNS Manually*** if the ***DHCP*** support is selected.
Set DNS Manually	Click to select getting DNS address for ***DHCP*** support.
DNS 1	Fill in the IP address of Domain Name Server 1.
DNS 2	Fill in the IP address of Domain Name Server 2.
DNS 3	Fill in the IP address of Domain Name Server 3.
Clone MAC Address	Fill in the MAC address that is the MAC address to be cloned.
Enable uPNP	Click the checkbox to enable uPNP function.
Enable Web Server Access on WAN	Click the checkbox to enable web configuration from WAN side.
Enable WAN Echo Reply	Click the checkbox to enable WAN ICMP response.
Set TTL value	Click to Enable and set Time to Live value.
Apply Changes	Click the ***Apply Changes*** button to complete the new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

- PPPoE



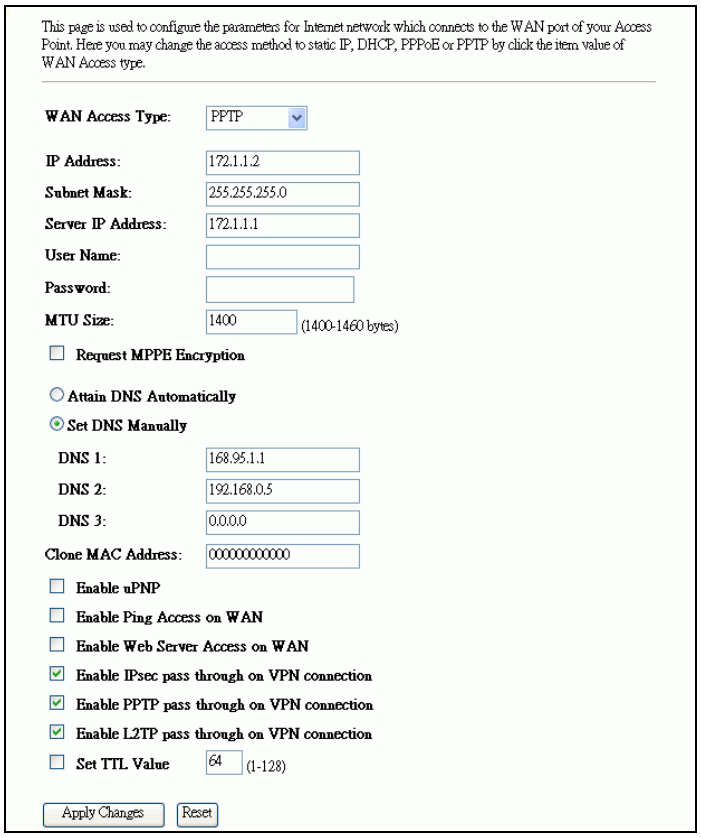
Screen snapshot – WAN Interface Setup – PPPoE

Item	Description
PPPoE	Click to select PPPoE support on WAN interface. There are user name, password, connection type and idle time settings need to be done.
User Name	If you select the PPPoE support on WAN interface, fill in the user name and password to login the PPPoE server.
Password	If you select the PPPoE support on WAN interface, fill in the user name and password to login the PPPoE server.
Service Name	Fill in the service name of Service Name. The default value is empty.
Connection Type	Select the connection type from pull-down menu. There are ***Continuous***, ***Connect on Demand*** and ***Manual*** three types to select. ***Continuous*** connection type means to setup the connection through PPPoE protocol

	whenever this AP is powered on. ***Connect on Demand*** connection type means to setup the connection through PPPoE protocol whenever you send the data packets out through the WAN interface; there are a watchdog implemented to close the PPPoE connection while there are no data sent out longer than the idle time set. ***Manual*** connection type means to setup the connection through the PPPoE protocol by clicking the ***Connect*** button manually, and clicking the ***Disconnect*** button manually.
Idle Time	If you select the ***PPPoE*** and ***Connect on Demand*** connection type, fill in the idle time for auto-disconnect function. Value can be between 1 and 1000 minutes.
MTU Size	Fill in the mtu size of MTU Size. The default value is 1400.
Attain DNS Automatically	Click to select getting DNS address for ***PPPoE*** support. Please select ***Set DNS Manually*** if the ***PPPoE*** support is selected.
Set DNS Manually	Click to select getting DNS address for ***Static IP*** support.
DNS 1	Fill in the IP address of Domain Name Server 1.
DNS 2	Fill in the IP address of Domain Name Server 2.
DNS 3	Fill in the IP address of Domain Name Server 3.
Clone MAC Address	Fill in the MAC address that is the MAC address to be cloned.
Enable uPNP	Click the checkbox to enable uPNP function.
Enable Web Server Access on WAN	Click the checkbox to enable web configuration from WAN side.
Enable WAN Echo Reply	Click the checkbox to enable WAN ICMP response.
Set TTL value	Click to Enable and set Time to Live value.

Apply Changes	Click the ***Apply Changes*** button to complete the new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

- PPTP


This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.
WAN Access Type: PPTP
IP Address: 172.1.1.2
Subnet Mask: 255.255.255.0
Server IP Address: 172.1.1.1
User Name:
Password:
MTU Size: 1400 (1400-1460 bytes)
Request MPPE Encryption
Attain DNS Automatically
Set DNS Manually
DNS 1: 168.95.1.1
DNS 2: 192.168.0.5
DNS 3: 0.0.0.0
Clone MAC Address: 000000000000
Enable uPNP
Enable Ping Access on WAN
Enable Web Server Access on WAN
Enable IPsec pass through on VPN connection
Enable PPTP pass through on VPN connection
Enable L2TP pass through on VPN connection
Set TTL Value 64 (1-128)
Apply Changes
Reset

Screen snapshot – WAN Interface Setup – PPTP

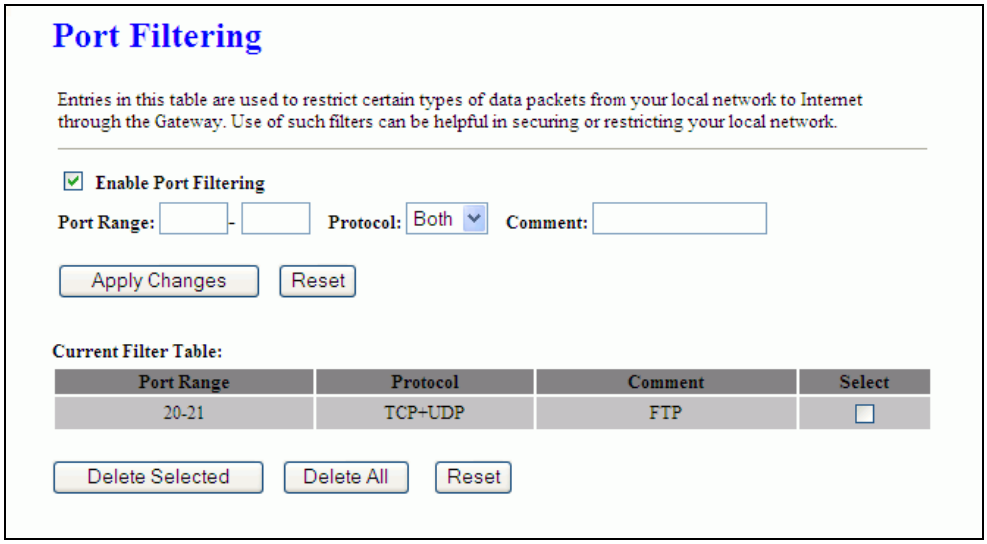
Item	Description
PPTP	Allow user to make a tunnel with remote site directly to secure the data transmission among the connection. User can use embedded PPTP client supported by this router to make a VPN connection.
IP Address	If you select the PPTP support on WAN interface, fill in the IP address for it.
Subnet Mask	If you select the PPTP support on WAN interface, fill in the subnet mask for it.
Server IP Address	Enter the IP address of the PPTP Server.

User Name	If you select the PPTP support on WAN interface, fill in the user name and password to login the PPTP server.
Password	f you select the PPTP support on WAN interface, fill in the user name and password to login the PPTP server.
MTU Size	Fill in the mtu size of MTU Size. The default value is 1400.
Request MPPE Encryption	Click the checkbox to enable request MPPE encryption.
Attain DNS Automatically	Click to select getting DNS address for ***PPTP*** support. Please select ***Set DNS Manually*** if the ***PPTP*** support is selected.
Set DNS Manually	Click to select getting DNS address for ***PPTP*** support.
DNS 1	Fill in the IP address of Domain Name Server 1.
DNS 2	Fill in the IP address of Domain Name Server 2.
DNS 3	Fill in the IP address of Domain Name Server 3.
Clone MAC Address	Fill in the MAC address that is the MAC address to be cloned.
Enable uPNP	Click the checkbox to enable uPNP function.
Enable Web Server Access on WAN	Click the checkbox to enable web configuration from WAN side.
Enable WAN Echo Reply	Click the checkbox to enable WAN ICMP response.
Set TTL value	Click to Enable and set Time to Live value.
Apply Changes	Click the ***Apply Changes*** button to complete the new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.12 Firewall - Port Filtering

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway.

Use of such filters can be helpful in securing or restricting your local network.

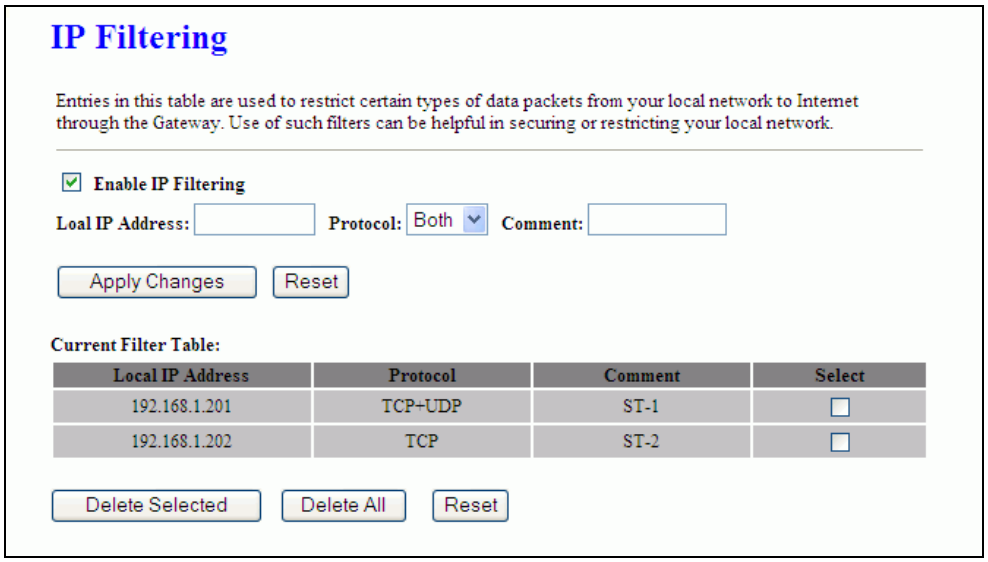


Screen snapshot – Firewall - Port Filtering

Item	Description
Enable Port Filtering	Click to enable the port filtering security function.
Port Range Protocol Comments	To restrict data transmission from the local network on certain ports, fill in the range of start-port and end-port, and the protocol, also put your comments on it. The ***Protocol*** can be TCP, UDP or Both. ***Comments*** let you know about whys to restrict data from the ports.
Apply Changes	Click the ***Apply Changes*** button to register the ports to port filtering list.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.
Delete Selected	Click to delete the selected port range that will be removed from the port-filtering list.
Delete All	Click to delete all the registered entries from the port-filtering list.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.13 Firewall - IP Filtering

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.



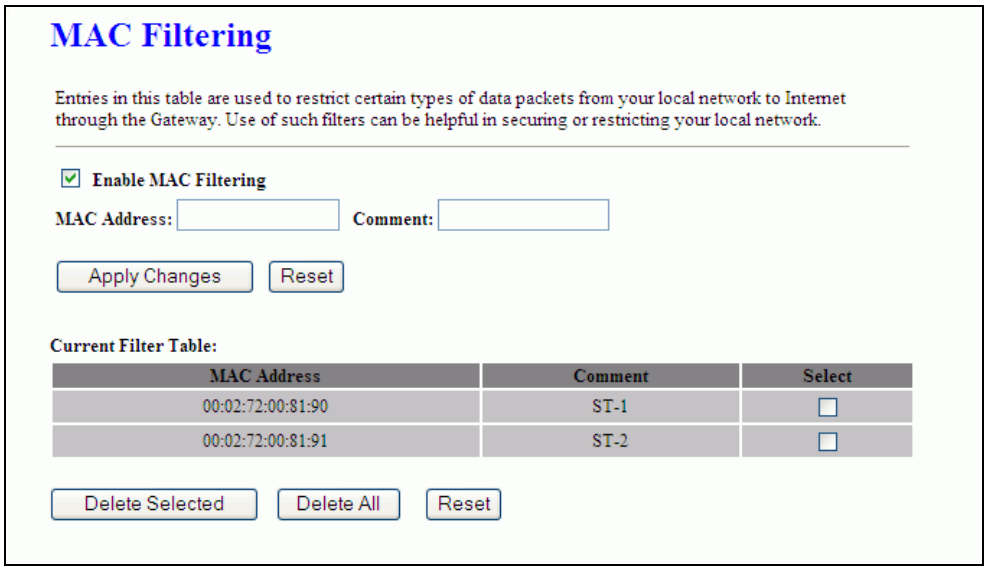
Screen snapshot – Firewall - IP Filtering

Item	Description
Enable IP Filtering	Click to enable the IP filtering security function.
Local IP Address Protocol Comments	To restrict data transmission from local network on certain IP addresses, fill in the IP address and the protocol, also put your comments on it. The ***Protocol*** can be TCP, UDP or Both. ***Comments*** let you know about whys to restrict data from the IP address.
Apply Changes	Click the ***Apply Changes*** button to register the IP address to IP filtering list.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.
Delete Selected	Click to delete the selected IP address that will be removed from the IP-filtering list.
Delete All	Click to delete all the registered entries from the IP-filtering list.

Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.14 Firewall - MAC Filtering

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.



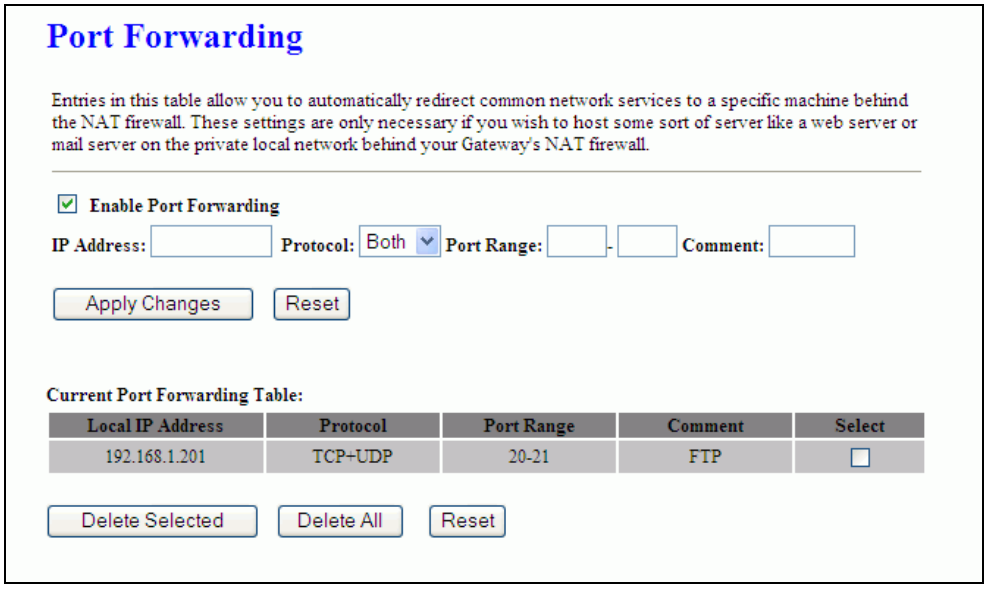
Screen snapshot – Firewall - MAC Filtering

Item	Description
Enable MAC Filtering	Click to enable the MAC filtering security function.
MAC Address Comments	To restrict data transmission from local network on certain MAC addresses, fill in the MAC address and your comments on it. ***Comments*** let you know about whys to restrict data from the MAC address.
Apply Changes	Click the ***Apply Changes*** button to register the MAC address to MAC filtering list.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.
Delete Selected	Click to delete the selected MAC address that will be removed from the MAC-filtering list.
Delete All	Click to delete all the registered entries from

	the MAC-filtering list.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.15 Firewall - Port Forwarding

Entries in this table allow you to automatically redirect common network services to a specific machine behind the NAT firewall. These settings are only necessary if you wish to host some sort of server like a web server or mail server on the private local network behind your Gateway's NAT firewall.



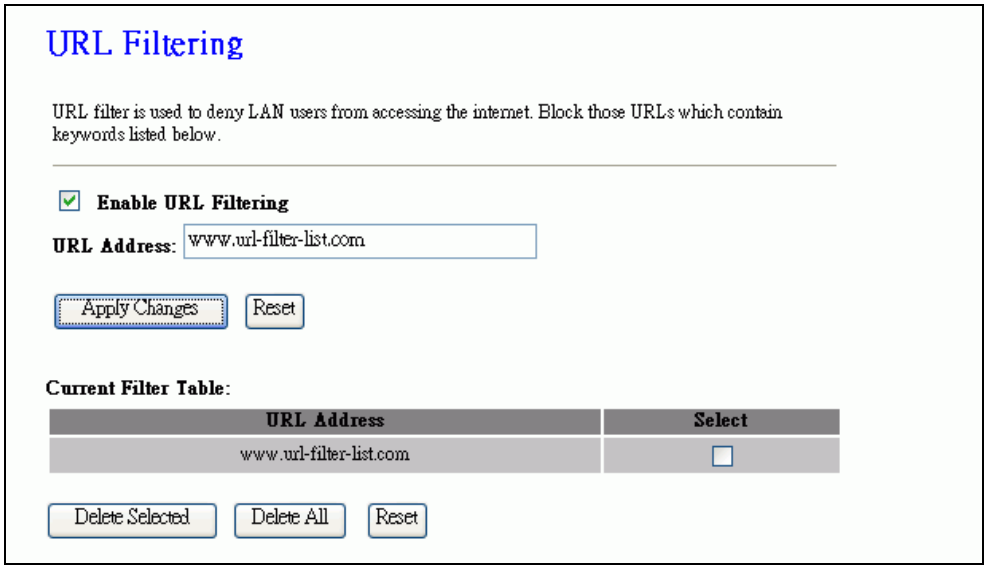
Screen snapshot – Firewall - Port Forwarding

Item	Description
Enable Port Forwarding	Click to enable the Port Forwarding security function.
IP Address Protocol Port Range Comment	To forward data packets coming from WAN to a specific IP address that hosted in local network behind the NAT firewall, fill in the IP address, protocol, port range and your comments. The ***Protocol*** can be TCP, UDP or Both. The ***Port Range*** for data transmission. ***Comments*** let you know about whys to allow data packets forward to the IP address and port

	number.
Apply Changes	Click the ***Apply Changes*** button to register the IP address and port number to Port forwarding list.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.
Delete Selected	Click to delete the selected IP address and port number that will be removed from the port-forwarding list.
Delete All	Click to delete all the registered entries from the port-forwarding list.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.16 Firewall – URL Filtering

URL Filtering is used to restrict users to access specific websites in internet.



Screen snapshot – Firewall – URL Filtering

Item	Description
Enable URL Filtering	Click to enable the URL Filtering function.

URL Address	Add one URL address.

Apply Changes	Click the ***Apply Changes*** button to save settings.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.
Delete Selected	Click to delete the selected URL address that will be removed from the URL Filtering list.
Delete All	Click to delete all the registered entries from the URL Filtering list.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.17 Firewall - DMZ

A Demilitarized Zone is used to provide Internet services without sacrificing unauthorized access to its local private network. Typically, the DMZ host contains devices accessible to Internet traffic, such as Web (HTTP) servers, FTP servers, SMTP (e-mail) servers and DNS servers.

DMZ
A Demilitarized Zone is used to provide Internet services without sacrificing unauthorized access to its local private network. Typically, the DMZ host contains devices accessible to Internet traffic, such as Web (HTTP) servers, FTP servers, SMTP (e-mail) servers and DNS servers.
Enable DMZ
DMZ Host IP Address: 192.168.1.201
Apply Changes
Reset

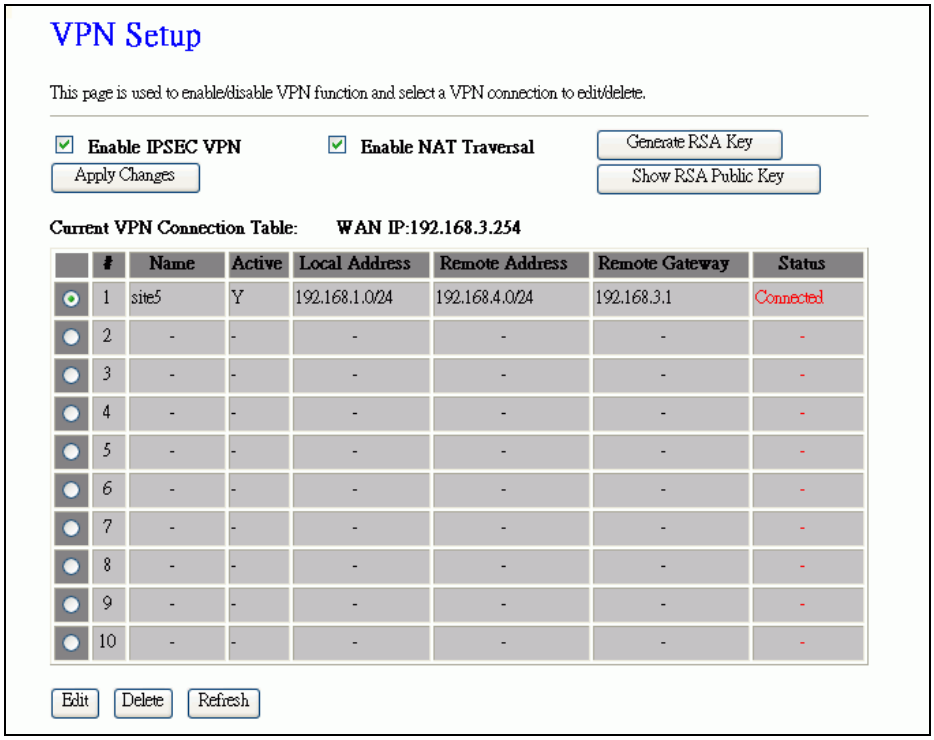
Screen snapshot – Firewall - DMZ

Item	Description
Enable DMZ	Click to enable the DMZ function.

DMZ Host IP Address	To support DMZ in your firewall design, fill in the IP address of DMZ host that can be access from the WAN interface.
Apply Changes	Click the ***Apply Changes*** button to register the IP address of DMZ host.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.18 VPN Setting

This page is used to show VPN connection table, configure IPSEC VPN, NAT Traversal, Generate RSA Key, Show RSA Public Key.

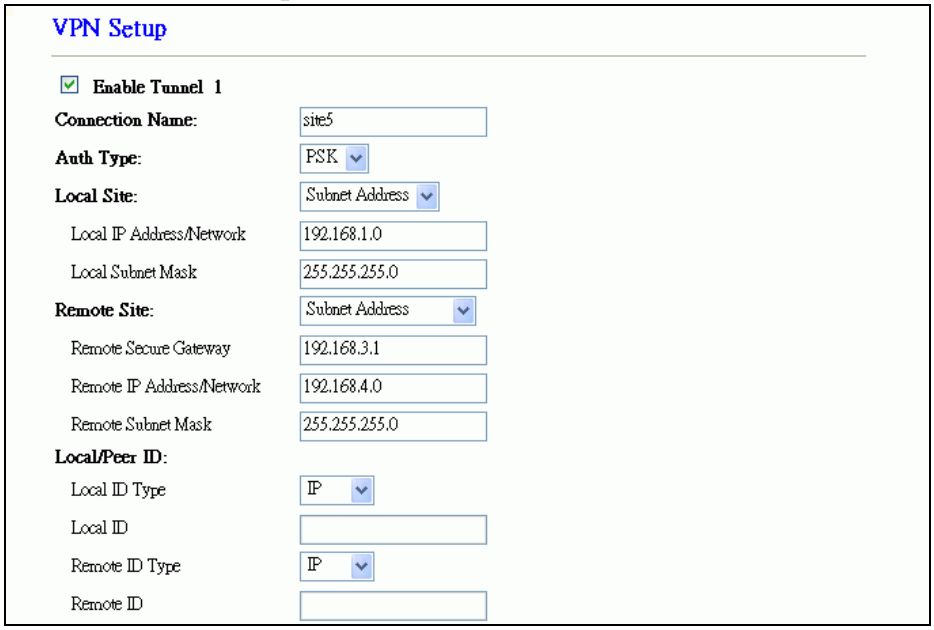

VPN Setup
This page is used to enable/disable VPN function and select a VPN connection to edit/delete.
Enable IPSEC VPN
Enable NAT Traversal
Generate RSA Key
Apply Changes
Show RSA Public Key
Current VPN Connection Table:
WAN IP:192.168.3.254
Name Active Local Address Remote Address Remote Gateway Status
1 site5 Y 192.168.1.0/24 192.168.4.0/24 192.168.3.1 Connected
2 - - - - - -
3 - - - - - -
4 - - - - - -
5 - - - - - -
6 - - - - - -
7 - - - - - -
8 - - - - - -
9 - - - - - -
10 - - - - - -
Edit
Delete
Refresh

Screen snapshot – VPN Setup

Item	Description
Enable IPSEC VPN	Click to enable IPSEC VPN function.
Enable NAT Traversal	Click to enable NAT Traversal function.
Generate RSA Key	Click to generate RSA key.
Show RSA Public Key	Click to show RSA public key that we generate.

Apply Changes	Click the ***Apply Changes*** button to enable IPSEC VPN, NAT Traversal settings.
Current VPN Connection Table	It shows current WAN interface information and VPN connection table.
Edit	Click to enter the current VPN tunnel configuration page.
Delete	Click to delete the current VPN tunnel that radio button stay.
Refresh	Click to refresh the current VPN connection table.

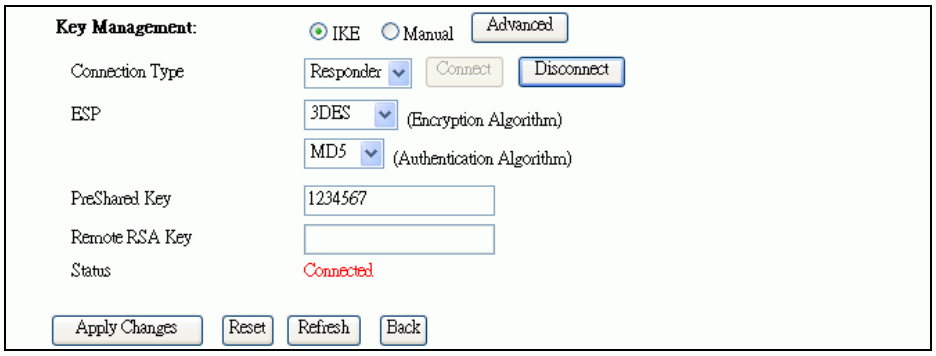
- VPN Setup - Edit Tunnel



Screen snapshot – VPN Setup-Edit-1

Item	Description
Enable Tunnel #	Click to enable the IPSEC VPN current tunnel.
Connection Name	Assign the connection name tag.
Auth Type	Click to select ***PSK*** or ***RSA***.
Local Site	Click to select ***Single Address*** or ***Subnet Address*** VPN connection.
Local IP Address/Network	Fill in IP address or subnet address depends on which Local Site option you choose.
Local Subnet Mask	Fill in the local subnet mask.
Remote Site	Click to select ***Single Address, Subnet***

	Address, ***Any Address*** or ***NAT-T Any Address***
Remote Secure Gateway	VPN remote connection. Fill in remote gateway IP address
Remote IP Address/Network	Fill in IP address or subnet address depends
Remote Subnet Mask	on which Remote Site option you choose. Fill in remote subnet mask
Local/Peer ID	Define IKE exchange information type
Local ID Type	Click to select ***IP***, ***DNS*** or ***E-mail*** as local
Local ID	exchange type
Remote ID Type	Fill in local ID except IP selected
Remote ID	Click to select ***IP***, ***DNS*** or ***E-mail*** as remote exchange type Fill in remote ID except IP selected

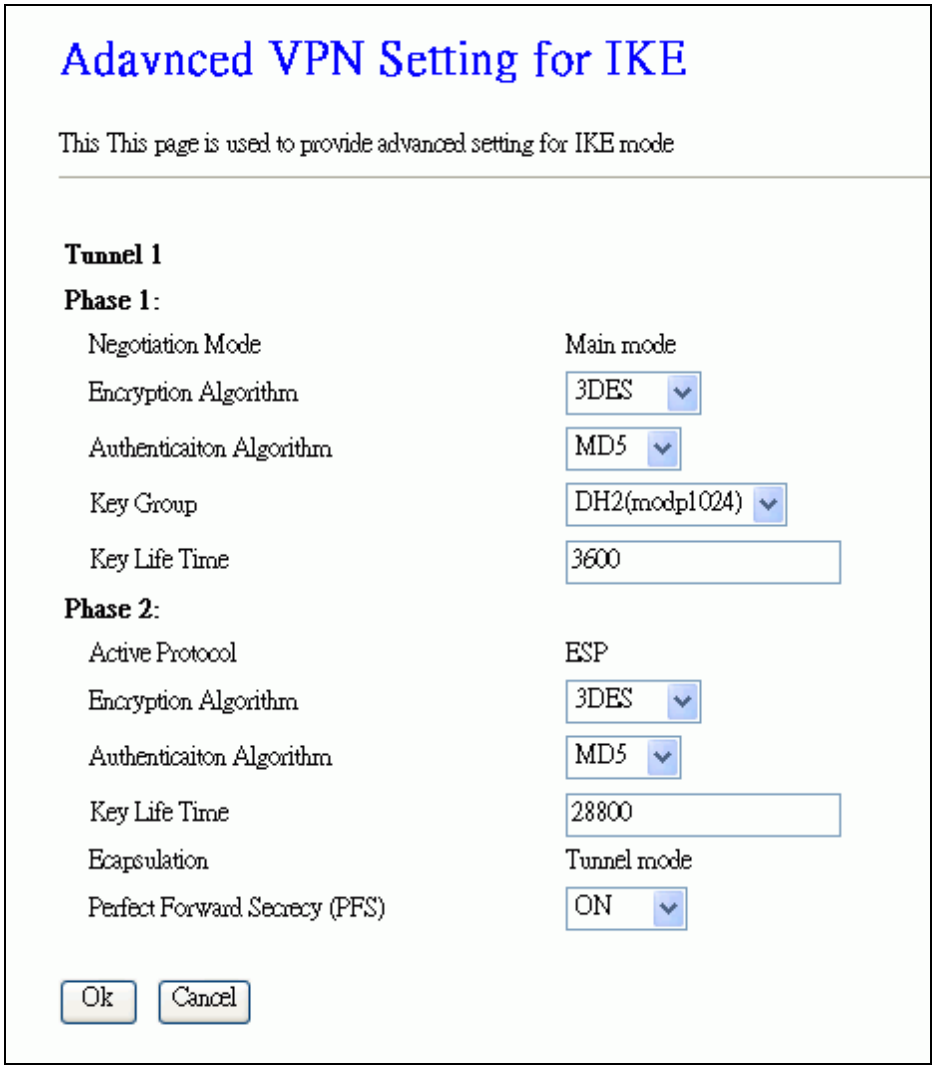


Screen snapshot – VPN Setup-Edit-2

Item	Description
Key Management	Click to select ***IKE*** or ***Manual*** mode.
Advanced	Click ***Advanced*** button to configure more IKE settings.
Connection Type	Click to select ***Initiator*** or ***Responder*** mode.
Connect	Click to connect manually. **[Responder mode only]**
Disconnect	Click to disconnect manually. **[Responder mode only]**.
ESP	Click to configure ***3DES***, ***AES128*** or ***NULL*** encryption. Click to configure ***MD5*** or ***SHA1*** authentication.

PreShared Key	Fill in the key value. **[IKE mode only]**
Remote RSA Key	Fill in the remote gateway RSA key. **[IKE mode only]**
Status	It shows connection status. **[IKE mode only]**
SPI	Fill in Security Parameter Index value. **[Manual mode only]**
Encryption Key	Fill in encryption key. **[Manual mode only]**
Authentication Key	Fill in authentication key. **[Manual mode only]**
Apply Change	Click the ***Apply Changes*** button to save current tunnel settings.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.
Refresh	It shows the current connection status. **[Manual mode only]**
Back	It returns back to VPN Setup page.

- Advanced IKE Setup



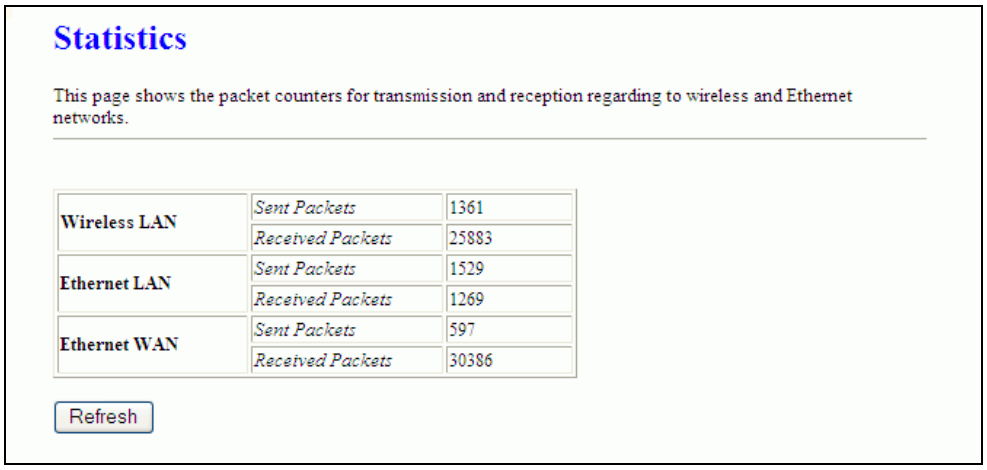
Screen snapshot – Advanced VPN Settings for IKE

Item	Description
Phase 1	
Negotiation Mode	Main mode.
Encryption Algorithm	Click to select ***3DES*** or ***AES128*** encryption.
Authentication Algorithm	Click to select ***MD5*** or ***SHA1*** authentication.
Key Group	Click to select ***DH1(modp768)***, ***DH2(modp1024)*** or ***DH5(modp1536)*** key group. Default value is DH2
Key Life Time	Fill in the key life time value by seconds.
Phase 2	

Active Protocol	ESP.
Encryption Algorithm	Click to select ***3DES***, ***AES128*** or ***NULL*** encryption.
Authentication Algorithm	Click to select ***MD5*** or ***SHA1*** authentication.
Key Life Time	Fill in the key life time value by seconds.
Encapsulation	Tunnel mode.
Perfect Forward Secrecy (PFS)	Click to select ***ON*** or ***NONE***.
Ok	Click the ***Ok*** button to save current tunnel settings.
Cancel	Click the ***Cancel*** button to close current window without any changes.

2.3.19 Management - Statistics

This page shows the packet counters for transmission and reception regarding to wireless, Ethernet LAN and Ethernet WAN networks.



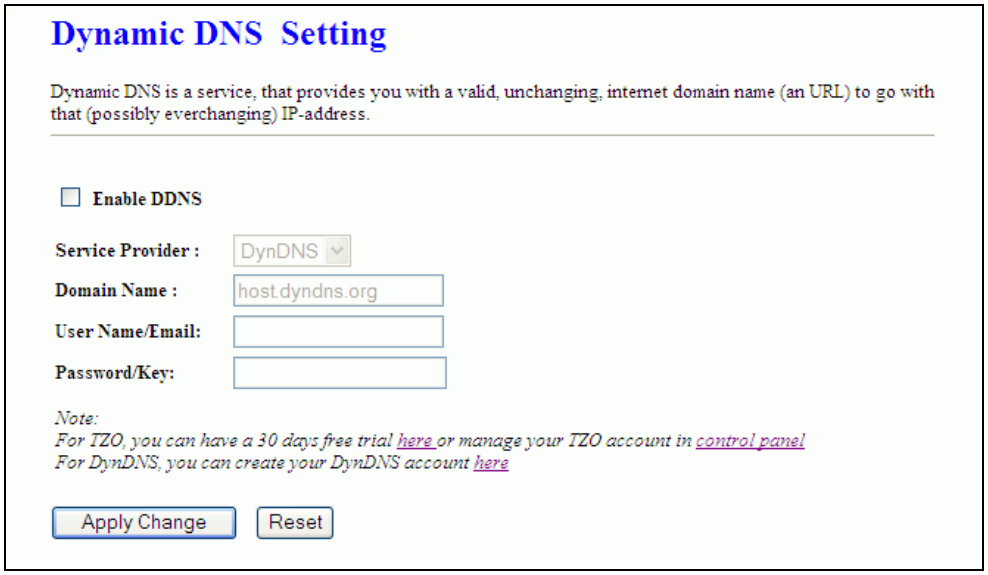
Screen snapshot – Management - Statistics

Item	Description
Wireless LAN ***Sent Packets***	It shows the statistic count of sent packets on the wireless LAN interface.
Wireless LAN ***Received Packets***	It shows the statistic count of received packets on the wireless LAN interface.
Ethernet LAN ***Sent Packets***	It shows the statistic count of sent packets on the Ethernet LAN interface.

Ethernet LAN ***Received Packets***	It shows the statistic count of received packets on the Ethernet LAN interface.
Ethernet WAN ***Sent Packets***	It shows the statistic count of sent packets on the Ethernet WAN interface.
Ethernet WAN ***Received Packets***	It shows the statistic count of received packets on the Ethernet WAN interface.
Refresh	Click the refresh the statistic counters on the screen.

2.3.20 Management - DDNS

This page is used to configure Dynamic DNS service to have DNS with dynamic IP address.

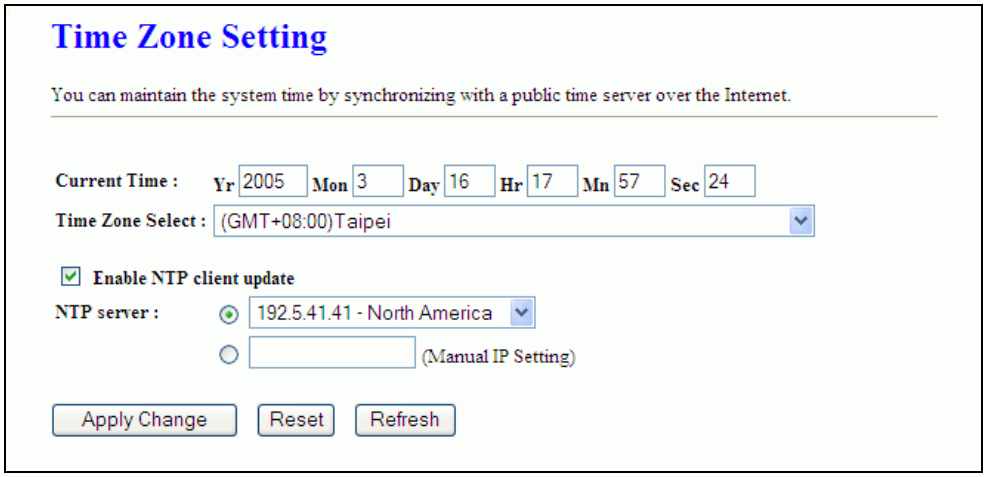

Dynamic DNS Setting
Dynamic DNS is a service, that provides you with a valid, unchanging, internet domain name (an URL) to go with that (possibly everchanging) IP-address.
Enable DDNS
Service Provider :
DynDNS
Domain Name :
host.dyndns.org
User Name/Email:
Password/Key:
Note:
For TZO, you can have a 30 days free trial here or manage your TZO account in control panel
For DynDNS, you can create your DynDNS account here
Apply Change
Reset

Screen snapshot – Management – DDNS

Item	Description
Enable DDNS	Click the checkbox to enable ***DDNS*** service.
Service Provider	Click the drop down menu to pickup the right provider.
Domain Name	To configure the Domain Name.
User Name/Email	Configure User Name, Email.
Password/Key	Configure Password, Key.
Apply Change	Click the ***Apply Changes*** button to save the enable DDNS service.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.21 Management - Time Zone Setting

This page is used to configure NTP client to get current time.

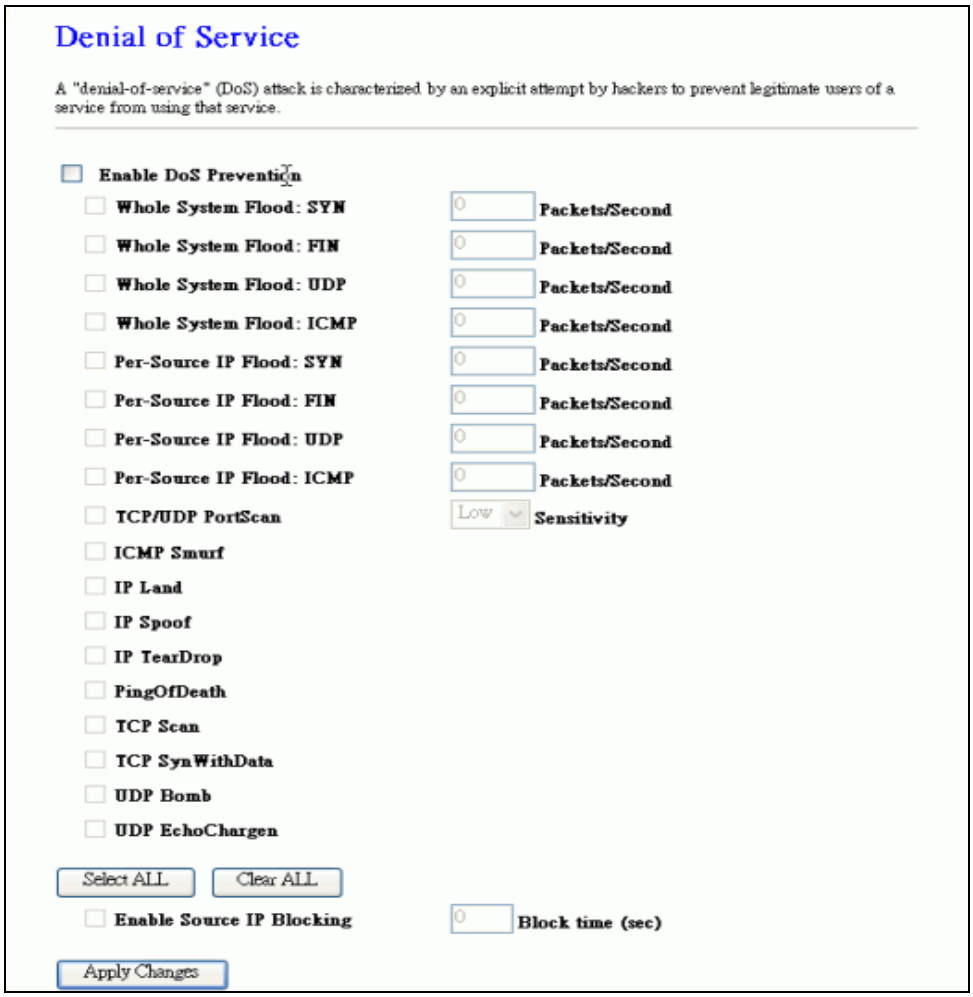

Time Zone Setting
You can maintain the system time by synchronizing with a public time server over the Internet.
Current Time :
Yr 2005 Mon 3 Day 16 Hr 17 Mn 57 Sec 24
Time Zone Select :
(GMT+08:00)Taipei
Enable NTP client update
NTP server :
192.5.41.41 - North America
(Manual IP Setting)
Apply Change
Reset
Refresh

Screen snapshot – Management – Time Zone Settings

Item	Description
Current Time	It shows the current time.
Time Zone Select	Click the time zone in your country.
Enable NTP client update	Click the checkbox to enable NTP client update.
NTP Server	Click select default or input NTP server IP address.
Apply Change	Click the ***Apply Changes*** button to save and enable NTP client service.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.
Refresh	Click the refresh the current time shown on the screen.

2.3.22 Management – Denial-of-Service

This page is used to enable and setup protection to prevent attack by hacker's program. It provides more security for users.

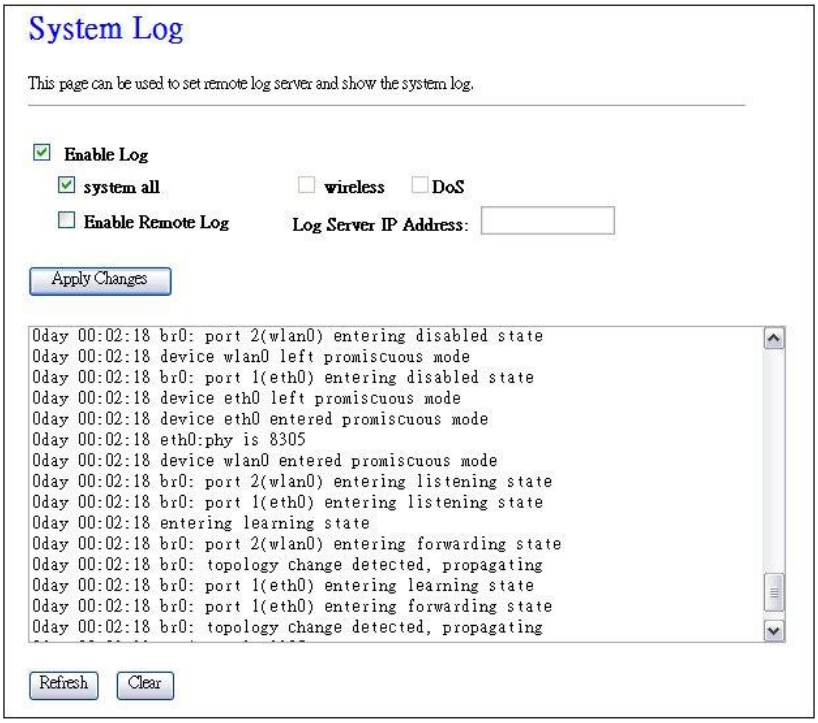


Screen snapshot – Management – Denial-of-Service

Item	Description
Enable DoS Prevention	Click the checkbox to enable DoS prevention.
Whole System Flood / Per-Source IP Flood…	Enable and setup prevention in details.
Select ALL	Click the checkbox to enable all prevention items.
Clear ALL	Click the checkbox to disable all prevention items.
Apply Changes	Click the ***Apply Changes*** button to save above settings.

2.3.23 Management - Log

This page is used to configure the remote log server and shown the current log.


System Log
This page can be used to set remote log server and show the system log.
Enable Log
system all
wireless
DoS
Enable Remote Log
Log Server IP Address:
Apply Changes
0day 00:02:18 br0: port 2(wlan0) entering disabled state
0day 00:02:18 device wlan0 left promiscuous mode
0day 00:02:18 br0: port 1(eth0) entering disabled state
0day 00:02:18 device eth0 left promiscuous mode
0day 00:02:18 device eth0 entered promiscuous mode
0day 00:02:18 eth0:phy is 8305
0day 00:02:18 device wlan0 entered promiscuous mode
0day 00:02:18 br0: port 2(wlan0) entering listening state
0day 00:02:18 br0: port 1(eth0) entering listening state
0day 00:02:18 entering learning state
0day 00:02:18 br0: port 2(wlan0) entering forwarding state
0day 00:02:18 br0: topology change detected, propagating
0day 00:02:18 br0: port 1(eth0) entering learning state
0day 00:02:18 br0: port 1(eth0) entering forwarding state
0day 00:02:18 br0: topology change detected, propagating
Refresh
Clear

Screen snapshot – Management – Log

Item	Description
Enable Log	Click the checkbox to enable log.
System all	Show all log of wireless broadband router
Wirelessy	Only show wireless log
DoS	Only show Denial-of-Service log
Enable Remote Log	Click the checkbox to enable remote log
Log Server IP	service.
Address	Input the remote log IP address
Apply Changes	Click the ***Apply Changes*** button to save above settings.
Refresh	Click the refresh the log shown on the screen.
Clear	Clear log display screen

2.3.24 Management - Upgrade Firmware

This page allows you upgrade the Access Point firmware to new version. Please note, do not power off the device during the upload because it may crash the system.

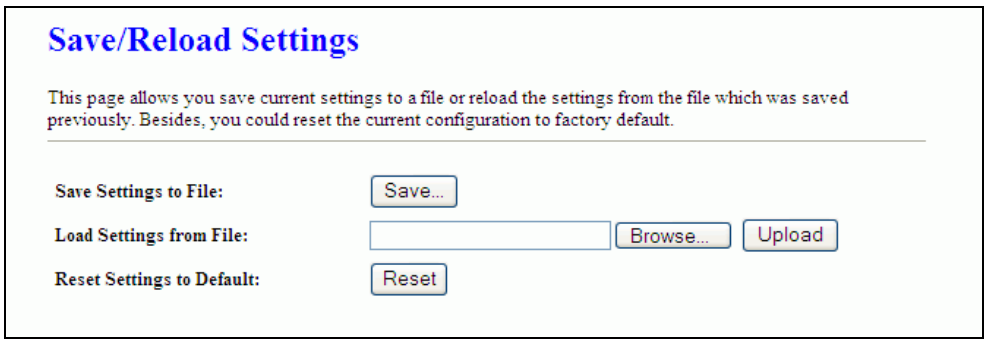
Upgrade Firmware
This page allows you upgrade the Access Point firmware to new version. Please note, do not power off the device during the upload because it may crash the system.
Select File:
Browse...
Upload
Reset

Screen snapshot – Management - Upgrade Firmware

Item	Description
Select File	Click the ***Browse*** button to select the new version of web firmware image file.
Upload	Click the ***Upload*** button to update the selected web firmware image to the AP.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.25 Management Save/ Reload Settings

This page allows you save current settings to a file or reload the settings from the file that was saved previously. Besides, you could reset the current configuration to factory default.


Save/Reload Settings
This page allows you save current settings to a file or reload the settings from the file which was saved previously. Besides, you could reset the current configuration to factory default.
Save Settings to File:
Save...
Load Settings from File:
Browse...
Upload
Reset Settings to Default:
Reset

Screen snapshot – Management - Save/Reload Settings

Item	Description
Save Settings to File	Click the ***Save*** button to download the configuration parameters to your personal computer.
Load Settings from File	Click the ***Browse*** button to select the configuration files then click the ***Upload*** button

	to update the selected configuration to the AP.
Reset Settings to Default	Click the ***Reset*** button to reset the configuration parameter to factory defaults.

2.3.26 Management - Password Setup

This page is used to set the account to access the web server of Access Point. Empty user name and password will disable the protection.

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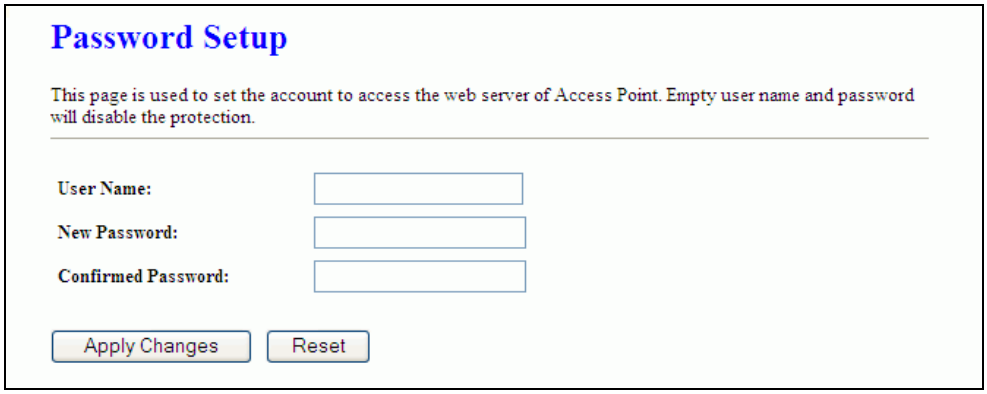
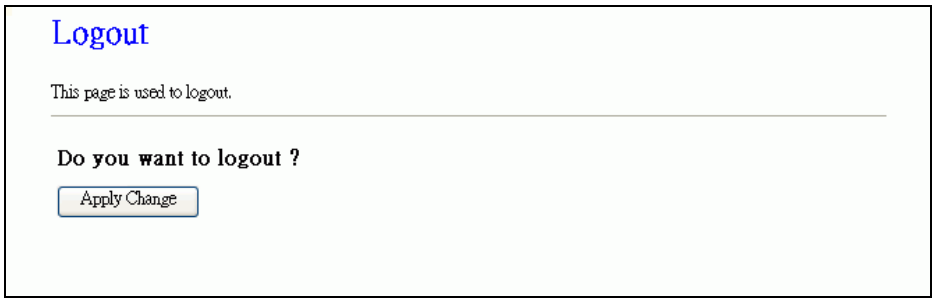

Password Setup
This page is used to set the account to access the web server of Access Point. Empty user name and password will disable the protection.
User Name:
New Password:
Confirmed Password:
Apply Changes
Reset

Screen snapshot – Management - Password Setup

Item	Description
User Name	Fill in the user name for web management login control.
New Password	Fill in the password for web management login control.
Confirmed Password	Because the password input is invisible, so please fill in the password again for confirmation purpose.
Apply Changes	Clear the ***User Name*** and ***Password*** fields to empty, means to apply no web management login control. Click the ***Apply Changes*** button to complete the new configuration setting.
Reset	Click the ***Reset*** button to abort change and recover the previous configuration setting.

2.3.27 Logout

This page is used to logout web management page. This item will be activated next time you login after you define user account and password.



Screen snapshot – Logout

Screen snapshot – Logout - OK

Item	Description
Apply Change	Click the ***Apply Change*** button, Then click ***OK*** button to logout.